```
atgagtcgtc aaattgcctg atttattttt gcttatttac acttgcttta gaatagacct   13740
gatgacttaa tgttaattat caacagcaca tatttagtat gtatccactg tgtacaaaat   13800
agtggattaa gcaactgata ttctaaaggg atagaaaata tactccctta cagtaaagga   13860
cacgttaaag caataaataa atccagtagt acatactgaa tagattaagc acagatcgag   13920
ttgtgagtat atatacatgg ttttctgggt ttaatgacta agcaaatgtt actgaagcaa   13980
agaatttgtg tgaaagtagc atttaaact gttctataga ttttcaggag gtagtcctgg   14040
gtaaaaggag ttctagggtc aaatgaattt gagaaaggtt gcaggtattt attctgcctg   14100
gatgttcaca gggtgtatca gcaaactaga agctctgacc atccctgaaa ataaagagag   14160
acacccattt aactttgttg aatgcaatgt tctccaaatt aatttgcatg caaattaatc   14220
taaattaacc caaaattaat ctggagaaca ctgcattcat agcacatttg ttagcatctt   14280
acagacatca gtttgagaaa tactgtttag tgggagataa agttaaagag agaaaagaga   14340
taacaggaac aaaaactgat ggctcaggct catttctgct ttaaaggaag ctggtgctca   14400
aatctggaat tataccaaaa tgtcaatata tgcacaaggc cttgaaattt ttcataattc   14460
ttttttttcct tctgtgcatt gtattaatca atgtcctgaa tgtgtgtgtt gaaaaccatc   14520
ttccaggaat atgccatatc tatctaacaa atgcacatat tttactgcag gaatcatata   14580
ttgttttctt cagaaagact ctgaacaagt tacggttagt ttgcagaatc tgggaattca   14640
tgcaggtgct taccatgcca atttggagcc agaagataag accacagttc atagaaaatg   14700
gtcagccaat gaaattcagg ttaggtctat atcttccata gaagcctaat ttacctttaa   14760
aatatttaaa cttgatttaa ttaactgata aaatgttaaa atatttcagg tagtagtggc   14820
aactgttgca tttggtatgg gaattgataa gccagatgtg aggtttgtta tccatcattc   14880
aatgagtaaa tccatggaaa attattacca agagagtgga cgtgcaggta tgtaggactc   14940
aaatccagaa gtaaattttt agaaagcttt tccaaaaaat acatgataaa tgcttaataa   15000
gtctgtatgt tttatcttta ttggatagta tttttagaac aatgtatttt tagcagtttg   15060
acacttactt gcatatggag aaatttttac ttatgttctg ttatctgaat tgtttctttt   15120
tatgtgtgtt aagataattt gatgttcatc tttgcctcct gaattttaa ttagtgattt    15180
caaatctata acttaactgg attatagaca cattttttaa cttagtagag ctgattattg   15240
atgtctcttt agagttttt ttaatttgag ggtacccatt acaaattaac ttccacatct    15300
ctaaaatttc tagatgtagt ataaaacatt gcctgctaat tttaccatat gtcatttttg   15360
catattttga atttgtaaat gtaattctgc aatctcaagg tttctcacac cacaggtcga   15420
gatgacatga aagcagactg tattttgtac tacggctttg gagatatatt cagaataagt   15480
tcaatggtgg tgatggaaaa tgtgggacag cagaagcttt atgagatggt atcatactgt   15540
caaaacataa gcaagtaagc cacatacctt tttataactt ttatcaatta aagcaaatat   15600
gaaagtatat gacatcgttt ttaagttctt actaaataca ttggtggaac accaaagtgc   15660
agatccataa aagcagatgt tggagggtag gaaccagcac atcaacctgt atgatctgcc   15720
ttagttcaag aaaagatgcc ctatctttga gataatcctc caaaactact tttttaattg   15780
aaggtttttg agacacattg atagcaactt gaaggctttt tttctctggc actgctgtac   15840
agttacatga tttaataatt ttgaaaaggt ctatggttaa gataggcatt ttgagagtca   15900
agctcagtaa cgtgccacct tgccagctca tgtgtcaatg aaataccaag tttctcctta   15960
agaagtaagt ttaaatctac ttagggtggc tttagactag atagcttcct gaaagctttc   16020
tgtcatagtt atctttgtgc ttttattgcc tatcacataa gaagtgctca gaaatgtcga   16080
ggtggtaaat agcagccaga cagtgataga aatgttcttt ctttccaata gatactacaa   16140
taatctagtt aaaagaaatg agaaaatgaa aatgtcttcc aaaggccagt agagtctcat   16200
gaagcatatt ttaaggtttc aactcaaata ttgctacttt attaaaatat aagaaactat   16260
tttactgtca agaatattct cctaatagtt gcaaaacatt gaatttaaaa atggaactca   16320
gacaattttt taaacagtgt ttatcaagaa tatgtgggga aaaaagtcct atgtcggggg   16380
cacaatggcc ccccaaagat gttcacgtcc taattcctaa cctgtatgtt acctcacatg   16440
gcaaaaggaa agtagcattg cacatggaat taagactgtt cattagctga ccttaaaata   16500
gggagattat tttagattgt gtgatgtgag aagaacctga cactctgatt ttgatccagt   16560
gaaacccata gtacacttct aaatctaaac cacagaaatg taagaataaa tgtgtttaaa   16620
gccactaagt ttatggtaat attatggcag ttataggaag ctaatacagt atataactat   16680
gtaagctgaa atagagattc ttaaaacttt attatatcct ttaataattt gtatctttaa   16740
atgtgtttgc agatgtcgtc gtgtgttgat ggctcaacat tttgatgaag tatggaactc   16800
agaagcatgt aacaaaatgt gcgataactg ctgtaaagac agtggtgagt ttgttgtttt   16860
gtaaaccttt ataggctaat acagtcataa tgcctagtga cagagatacg ttctgagaaa   16920
tgcatcacta ggtgattttg tcattgtgca aacatcaaag tgtacttaca taaacctaga   16980
tggtatagtc tcctaggtga tatgttatag cctattgatc ctaggctacc aatctgtaca   17040
gcgtgttact gtactgcata ctgcaggcag ctgtaacaca tggttaagta tttgtgtatc   17100
taaacataga gtaagtacag taaaaatatg gtattataac ctgggtgaca gcgagactcc   17160
gtctcaaaaa aaaatatatg gtattatata atctcttggg accactggca tatacgtggt   17220
ccatcaccga ccaaaatatt atgtggcaca aaactgtata tacagctggg acatgagaga   17280
agtattagac ttccaaatgg atttaaaaga ttaaagtgtg aatcagattt tccagaatta   17340
```

6501

```
aaactatcaa catgaagttt tgaaacaaag gtgaataaaa ggaaaagtct tatgtgtatg 17400
cacacatttt atattgctat actgaggatg tgaaattttt aataaatgaa ggaaaatatt 17460
tgaattttc tgaatagaaa tgctattcta taagaaaagg gaaaccatgt gataatctct 17520
aatactttat agtcactaat tgaaaagaaa atttagtgca aaatagagac tatagagaat 17580
cactttgat ccagttaatg gctagtcatc ggagatttac ttaaaattct tttaaatgta 17640
gatcagcagg atttgtttc tgagcattgg tcacaaccct gctgatcaaa acaggatctg 17700
gtcaaaacaa gatatagcaa agaaactggc ccaaacaagt tagaactaga aaatataatg 17760
tatttgcatg atgtaagaca ctcccactag caccatgaca gtttacaaat gccgtgacaa 17820
tgcccgaaaa ttacatggtt ctaggaactc cctaaccttt tctagaagat tcatgaataa 17880
tcttcccctt atttagcata taactaagga gcagctataa ataccgctag tgagcaatgt 17940
acagtgccac tctgcctttg gggtagccct gctctgtcta tggagccgcc attttcctat 18000
actctattgc taataaactt gctttgcttt cactttactc tgttggcttg ctctcagatt 18060
gtttcttgca tgaaactggg aaccctcctg ggctgagtcc caattttcgg atttgcctgc 18120
agcattttgg cactatattt taactttttt tcatccgtgt gttgtatttc aagatctgga 18180
ctagccagta cctcatggta agaccttact gagttctgat gccttgttag gtggaagcca 18240
ctgtattttt aactttgcag acagagaaat ttatgagttt attagactat cttataaaat 18300
aacaagagtg ttatatataa atcagagtac tggtctctta ataattgggt tatcagttga 18360
ggacattctt gttgctaaat cagagttcac tcaggagcct atactagaac agacagggtc 18420
tcctataaaa cacacctctt agtaacttag taatcatgtc tggcagacac tttctgattt 18480
ctagagtata tggcagggct tctgataacc aattttttt tatatatatc actgtaaacc 18540
ccacaatgct tacagagacc ataacttggt ctagtgacag agacttgagg aatagcctag 18600
tcttaattca gaatacattt aaaaatcaat gtttagggtg gctcacattg ataaccagct 18660
ttaaaccagt ttaactactt aagatagcct atctttgccc tcatttctaa atcctaatta 18720
cctgctacca tatttgtttt attacagcat ttgaaagaaa gaacataaca gagtactgca 18780
gagatctaat caagatcctg aagcaggcag aggaactgaa tgaaaaactc actccattga 18840
aactgattga ttcttggatg ggaaagggtg cagcaaaact gagagtagca ggtgttgtgg 18900
ctcccacact tcctcgtgaa gatctggaga agattattgc acactttcta atacagcagt 18960
atcttaagta tgtacaaact cattcattat tctttcaggt tgtctttatg gttttttttt 19020
aaaaattgca acagaataaa cggttttgca gttattttgt gtgaacttt aaatgctata 19080
gaaagtaatt tacctaaaac actcaaactt taatcactat aaataaaaaa aagtaacgaa 19140
aatattttct ttaaaggctt tatttgcatt cttgtaaatt ttattatttc aagtcaatgt 19200
gttaagaatt actgcgcata tagttatttc ttttataaat ttgttttccg tgattccttc 19260
aaaagctttc ttattgttgg cctttatttt ctgcagagaa gactacagtt ttacagctta 19320
tgctaccatt tcgtatttga aaataggacc taaagctaat cttctgaaca atgaggcaca 19380
tgctattact atgcaagtga caaagtccac gcagaactct ttcagggtaa atggctatta 19440
attttcagtt ttatatattt taaaaagtat attaaagcct atgggatgct tttctgtcat 19500
attccctag gtccagttga acatgagaaa agtcagtttt ctgattagat ttctgggtat 19560
ggaagagaga aaatatagtt ttctgtaaag atgtaagtga aagaatttag actggccttt 19620
taacataaac taggggtttc cagtttcttg gaatgggagg actccgtttg aatatctaat 19680
tttgttatgc actctgctct tatttggttg tgattactaa tagttgagaa gtctgtttct 19740
gctgttccag tggttagaaa ccactgtttt aaaccaaata ctatcaagtc tgcaaaagca 19800
tgtcaagtca agtgccattg tgtctaagga catttgaggt ctttagaact tctctcacaa 19860
cgtagcccct tttattcaaa atagagctca tatttgaata gaaatttgta gataaaaaac 19920
tagacccctg tatacttaaa aagccaactg atacagaaag aatattttga aatatttaat 19980
ctcatgagaa aactgaatag ctggattttt accaaggtgc ttgctttgtt tttttttttt 20040
ttttgtaggc tgaatcgtct caaacttgtc attctgaaca aggtgataaa aagatggagg 20100
aaaaaaattc aggcaacttc cagaagaagg ctgcaaacat gcttcagcaa tctggttcta 20160
agaatacagg agctaagaaa agaaaaatcg atgatgcctg atatgaatgt tactaaattt 20220
tctaattaaa gatggtttat gcatgtatat gccattattt ttgtagttag acaatagttt 20280
ttaaagaat ttcatagata ttttatatgt atggatctat attttcagag cttatctctg 20340
aagatctaaa cttttgagaa tgtttgaaaa ttagagatca tgaattatat aattttccag 20400
tataaaacaa gggaaaaatt tttatgtaaa acccttaaa tgtaaaatat ttgagaataa 20460
gttcatacaa tcgtcttaag ttttttatgc ctttatatac ttagctatat tttttctttt 20520
gacataacta tcttttgaa agcaatatta tactgacaga ggctcactga gtgatacttt 20580
aagttaaata tgtagatcaa ggatgtccaa tcttttggct tccctgagcc acattggaag 20640
aagaattgtc ttgggccgca cataaaatat gctaacactg atgatagctg atgagcttaa 20700
aaaaaaaatt gcaagaaaaa tctcatgttt taagaaagtt tacaaaaaat gtaaaatatt 20760
tgagaataag ttcatgtaat tgtcttaagt tttttatgcc tttatatact tagctatatt 20820
ttttcttttg acataaccat cttttgaaa gcaatattat actgacagag gttcactgag 20880
tgatactta agttaaatat gtagatcagg gatgtccaat cttttggctt ccctgagcca 20940
cattggaaga agaattgtct tgggccgcac ataaaatatg ctaacactga cgatagctga 21000
```

6502

```
tgagcttaaa aaaaaaaaaa ttgcaagaaa aatctcatgt tttaagaaag tttacagatt  21060
tgtgttgggc tgcattcaaa gctgttctgg gctgcattag acccgtgggc tagagttgga  21120
caagcttgta gatgatttca ggttataaaa ccagaagtac aattcaacaa aaaaggagta  21180
agtcatcaat ataaatatta gcaaacgaga tattgctaca tctctattta aagtaaaata  21240
caaccgattt taaagttcct gaaaccatag ccatattttg acatttcaca aagaatggtt  21300
ctagtctact agagtacatt tggctaagta gataacttac ctaaatttgc tccaaagcta  21360
aatcacaagt aaacatattt atgtttaaaa cacagaaata aataacttaa gatttttatc  21420
taagcggtca gtgttgtatt ggaaagatat atctataaat aaactttgaa ctgatttcaa  21480
acttagaatt tatgtttta tatttttcca ctaatatcat tatcacttct gtaattttca  21540
gtgtggtcat cattaactca atacagtcat tcattttatt gacttgtgat ttttctggtg  21600
tcatttggaa ctttatatga ttcctgaaga aattccattt ttagtcaaaa taatcttcta  21660
tatcaatatt tggatctagc agatcttctc catatgatga aagattcatt tggtttaaga  21720
ttaggttttc aaatgtttct tctaaatcgg tttcaccaat taagacagct cccatcattc  21780
gtccatttttg catgacgact ttgatgtatt ctcgtccttt ggtacatctc agcattaatt  21840
catgatctga acctaagccc tgtgcattgt attttcccag cagtacaacc tatatttaga  21900
gataaaaagg ttattgtcat gagtatcata aagaaaatgt aatgggtagt tattttgtgt  21960
caagtttgaa tagccgcaga aaacttatgc cacaaaattt cataactaaa aatgttattg  22020
gggagagtcc caaagaaaat gtttcaacag catgcgttaa ttctacagat gacactatca  22080
cacactctac actgacatta aaaaattctg gtgaatatag tcaaatgtta atgtttaata  22140
ttttaacact aaaaatatct agtgaatata ggtaggtgat tctaccaatc tatatgaaca  22200
ttaaaactat acagtaaata tataaatatg taggatgtgg atacattaaa ccatgtggag  22260
tcgtggttta aagatttggc aaggaactga attagagctt tcatggaaaa gtttcttaat  22320
ttccctgagg cttttgaata tgtttctcct tctctgtaaa ttagggaaaa aaaaaaaccc  22380
aaaacaacct ttgtcaatgt gaagaggact gaataagata atagatacag gaaagctctt  22440
ggtttatttt tgagtacaac agcagttagt tcccctcaca aagaaaggat gaatcacaag  22500
taaaagttaa aaatgcacca acaagtaaca gatctagaga gaaatttttt tccctcttaa  22560
ctaaaataga atagtggtaa ggtggataat tatcagatga ttagggatta agactagcaa  22620
taataccagg tattggtttg taagaaatga aaaatgtcat ttttttgtag atgattaaaa  22680
ctatgtacgt ttttattcaa gcaagaaaat cacatgattt atcatagtca taagactaac  22740
aagcagagaa ggcattaata tgcttaacta tcttacctta tagttaaaaa attttgtcac  22800
atgagcaaac agttcaaagc tgaaatccat gtcaatagag tctcctgaac tcgctgcagc  22860
catgcacttt gctgcatacc atcccatctg tctagcctgg gtccacagcc tcatctgaaa  22920
tgatgaaaaa atgttacaca atgtcatttt tcatgatcat tatctgaaaa atgttaacct  22980
tgtaaattca cttaaaggag ttcaatgttt gacagtcttt ctgtcatctt tgccacagaa  23040
gcagtcacca atggataact aatcagactg attttttggta tttgttaatt ctatctaaat  23100
tactgcctct aaaattaaaa gatgatacca atcacacctg ttttagtagc atttctatta  23160
aatattatga aactatatta agctatacca ggtgagaaaa atgttttaat taaccagtcc  23220
cttcttcaaa aatttgtcat caccattaac agagatgtca aattatcact gaagaatttg  23280
ttctattttc cagcaacctt cattttatg cactacttaa ggtctgctgt gctgttaacc  23340
tcagtggtta gacagactct tggtgcctca ccaagacaac ataaatatct cagcaactga  23400
ttctgggaag tcatttaaat tgttttgcat gaccgtatta attcatctat tgtatttta  23460
ttttatttct atgaagtttt gagactccct ggtataaaag aacacggcct ttgacaaaat  23520
tcaacaaccc ttcatgctaa aaactctcaa taaggtattg atgggacgta tctcaaaata  23580
ataagatcta tgacaaaccc acagccaata tcatactgaa tgaacaaaaa ctggaagcat  23640
tccctttgaa aactggcata agacagggat gccctctctc accactccta ttcaacatag  23700
tgttggaagt tctggccagg gcaatcaggc aggagaaggg aataaagggc attcaattag  23760
gaaaagagga agtcaaattg tccctgtttg cagatgacat gattgtatat ctagaaaacc  23820
ccatcagctc agcccaaaat cttaagctga taagcaactt cagcaaagtc tcaggataca  23880
aaatcaatgt gcaaaaatca caagcattct tatacaccaa caacagacaa acagagccaa  23940
atcatgagtg aattcccatt cacaattgct tcaaagagaa taaaatacct aggaatccaa  24000
cttacaaggg atgtgaagga cctcttcaag gagaactaca aaccactgct caatgaaata  24060
aaagaggata caaacaaatg gaagaacatt ccatgctcat gggtaggaag aatcaatatc  24120
gtgaaaatgg ccatactgcc caaggtaatt tatagattca atgccatccc catcaagcta  24180
ccaatgactt tcttcacaga attggaaaaa actactttaa agttcatatg gaaccaaaaa  24240
agagcccgca tcgccaagtc aatcctaagc caaagaaca aagctggagg catcacgcta  24300
cctgacttca aactgtacta caaggctaca gtaaccaaaa cagcatggta ctggtaccaa  24360
aacagagata tagaccaatc gagcagaaca gaaccctcag aaataatgcc tcatatctac  24420
aactatctga tctttcacaa acctgacaaa aagaagaaat ggggaaggga ttccctattt  24480
aataaatggt gctgggaaaa ctggctagcc atatgtagaa agctgaaacg ggatcccttc  24540
cttcaccctt atacaaaaat taattcaaga tggattaaag acttacatgt tagacctaaa  24600
accataaaaa ccctagaaga aaacctaggc aataccattc aggacatagg catgggcaag  24660
```

```
gacttcatgt ctaaaacacc aaaagcaatg gcaacaaaag tcaaaattaa caaatgggat 24720
ctaattacac taaagagctt ctgcacagta aaagaaacca ccatcagagt gaacaggcaa 24780
cctacagaat gggagaaaat ttttgcaacc tactcgtccg acaaatggct aatatccaga 24840
atctacaatg aactcaaaca aatttacaaa aaaaaaacaa ccccatcaaa aagtcggcga 24900
aggatatgaa cagacacttc tcaaaagaag atatttatgc agccaaaaga caaatgaaaa 24960
aatgctcatc atcactggcc atcagagaaa tgcaaatcaa aaccacagtg agataccatc 25020
tcacaccagt tagaatggca atcattaaaa agtcaggaaa caacatgtgc tggagaggat 25080
gtggagaaat aggaacactt ttacactgtt ggtgggactg taaactagtt caaccattgt 25140
ggaagttggt gtggcgattc ctcagggatc tagaactaga aataccattt gactcagcca 25200
tcccagtact gcgtatatac ccaaaggatt ataaatcatg ctgctataaa gacacatgca 25260
cacgtatgtt tatagcggca ctattcacaa tagcaaagac ttggaaccaa cccaaatgtc 25320
caacaatgat agactggatt aagaaaatgt ggcacatata caccatggaa tactatgcag 25380
ccataaaaaa tgatgagttc atgtcctttg tagggacatg gatgaagctg gaaaccatta 25440
ttctcagcaa actattgcaa ggacaaaaaa ccaaacacca catgttctca ctcataggtg 25500
ggaactgaac aatgagaaca catggacaca ggaaggggaa catcacacac cggggactct 25560
tgtggggtgg gggtgcagca caccaacatg gcacatgtat acatatgtaa caaacttgca 25620
cgttgtgtac atgtatccta aaacttaaat ataataataa aaaaaaaaaa cactgacctt 25680
gggagtcaca gtggatttta atatcaacag atctacatat atatttaact tttctgggcc 25740
tcggttcatt tacctgaaac gtaaacataa cactacctac tctgtaacta ttgagagaat 25800
taaacaggtt agcgtataat aagcacttgg tttccttcta cctccctgta tgtgcatatg 25860
tacttaatgc tgtctttgt ttgcagaaat aatatcataa tcatagacat gagtttaag 25920
catttctagc agaagtgata gatttttttt tttcaatctc ctctgtaaac aaggtattat 25980
agatttgatg aagtgaaagg cagtttatgg ctgggggtca gaataaactg agcacagtaa 26040
caactagaga acagctaata caagtggccg gaaaatttgc atcttgaact gcataaatta 26100
gtatccttat tgcttgtgta agccaagaaa tggggcctat aaggtgcact caaaacaagg 26160
ccatctgttt attttcggat tttttcccct ctttcagatt ataacacatt aagatataat 26220
ttaccctaga gaattaaaaa tgttaaaaaa aaaaaaaccc ataaactcca actctaagaa 26280
tttgtgatag tcttgccaca gaaatgacat agaatgaggc aggttagaaa caaaaaggct 26340
ggaaccattc ttactgatgt ctctactgtc tgtaagaaca caaaatgatg gtgctgcctc 26400
ttgaaatact tttagctctt ctcctacttc acactgcata atctgaatga ataatgtccc 26460
taactgtgga gctggtcttt aacaaagata aatgttgcct ggttccttta tttcaaacat 26520
ctacctaggt ctctacccct ctgcacacct ctggtcactg tctttatctt cctctagtat 26580
ttttgttcca ccgttaggag gaggtaggta aagctgtgag ggtaggaaaa agtctagatc 26640
cagttgggac ttgttaaggc tcaggaaagg tgtttactac aggaattttt tttttttttt 26700
ttgagacaga gttttgctct tgttgcccag gctggggtgc agtggtgcga tctcagctca 26760
ctgcaacctc cgcctcccag gttcaaggga ttcttgtgcc tcagcctcct gaatagctgg 26820
gattacagac gcacaccatc atgctcagct aatttttgt attttagta aagacggggt 26880
ttcatcatgt tgttcaggct ggtctcaaac tcctaacttc agatgataca cctgcctctc 26940
accctcccaa agtgctggga ttacaggcgt gagccactgc gcccagaaca ttttttagta 27000
atgattacca cagggacaga ataggatcat aaaggaatag aatgcttttc tatataattt 27060
acaatcttag tagttttttt aatctaaagt tgtgctgtcc aacatcgtag ccacatatat 27120
ttaaagttaa tgagaagtaa gtaaaaataa ttcagttcct cagtcacatt aaccacattt 27180
caagtgctca tgtgacatac tgctggctac ctgactagat ggtgaggaat taaacatttc 27240
catcatcaca gaaagttctc ctggacagtg ctgataagca ggtaagaatg aaaaacaaag 27300
taatagccca taatttcttt taaagtaaaa gatgtctcag tctaccatta taatgataac 27360
ttaccaaaca gggaaatatt ctagtttttt ttttaaatat atataacaac tgtgctagct 27420
tcctacttaa gcagaaaagt tggaaaacca gaagttggat ttgttggtaa caccgctttt 27480
attttcagac agaatctctg atgaaaacat ataattatat atgctagctt acctgctgcc 27540
agactgggct cagctgccag gatgtagtac agatgtcacc ggcagcatag atatcaggaa 27600
gggatgtgtg catatgatca tccactttca ggccaccatc ttctcctaga tcaaactaaa 27660
caacattcct cataagcgtt aagtgttaag aaaaatgaaa cgactttttc cattttaaag 27720
taaaagaaca aattaaattg ttacactttg catgctcatc tttaatgaga aaatgaaaaa 27780
tatcagcaaa gtttagacac ctgagctgaa tttccatgga tcaaattcca actaagactg 27840
atccataaaa ctgtcagaat ttcaacatga aaagtatcca ataaccatgt gactacctta 27900
tccataacta caagaatatt cttttttttt ttttgtaagc ttcaagtgct gaaaagcaaa 27960
aaatacaaga tggtttctct aaaagaatca tttttgagaa gtcacgggag gtgtcagtct 28020
cttaccaaca tttagataaa taaattgtac attataaacc attactgatg acgcttatgc 28080
aaggatataa ctatgtaagg attttaagca gtaaaaaata ctgtaaatca agacaatgtt 28140
ttaaccaaac tgtttccaac catgttaagt tacagttgta cactaaaata ataattattc 28200
atgtttgaga attagagatc ttcacaaaaa tacttcaaat atattcacag ctggacaaaa 28260
aaatttcacc ttacactgtt accatggaga aaaggttcta catttggtgt aactcctgta 28320
```

6504

```
gcactgacaa tgaaatcgca gccatatatc ttttcattgg tcaattccac atagacaggc 28380
cacatctctt taagaaaaaa aaaccaaaaa aacagacttt atttgtaaat ggaaccatca 28440
ccacagcagt gtatgtgact acaatgacta gaaacaaaga aagaaaaaga aaggcaagag 28500
ataactttgt aacacactcc ttagcaatta ttatgaggca tatttgctaa agcaatttta 28560
atgcaattag catcatctcg tttgggtata atttaaaac catggcattt taaatgtttt 28620
tccttcaaat ttggacacat aaatttgac aaagtacatt taaattattt ctaaattatt 28680
tctctaaaaa tcttttgtaa tactttacac tccacttaag tgtttagttc aactaggtgt 28740
cttccctcac tactcatatt caaattcccc tttcctatgg aaaaattcaa agaattcaga 28800
acagtagaat atttcatatg ctagttaact gagtgtattt cttcaaatca tggcaattct 28860
cagaggagtt gtggaactgg agttaggaga gctgcatctt agtcccaaaa atatacattt 28920
tcaatctgat ttgggtgaaa tcatgtcacc tttaagagct ctaggttttt gtcttatttt 28980
gatttataat atattctgat tgttggtcaa aacactcagc tctatgtaag atgtaatgcc 29040
ctatacgatt taatttacta gaaaacaaca gacagtgaaa tgaagtgagt taatgttatt 29100
aaattatggt tttatttta cttttcatgt ttaaatttta tatggaaata cgaagttatt 29160
tttaatagaa cacagcagga ttaaattgtt ttccttttaa ttaagtggtt atatatattt 29220
tttcttattt cattacttgc ctgtatcagc tgtaactgac ttatggtctc ttggaaaagt 29280
gaaggacttt ttcttcaaaa ttctaaactc atcctgaagg tagatttct ttacttcaca 29340
catagtttca aggtgaatct tatgagaaaa ctaaaattaa gaaaatactg gttagcataa 29400
tacttacaga aagaataacc cgggttacta atgatgaaga aaaaacgtat acttgtagaa 29460
atgtatagaa aacataattc ttataatata aatgaaacca cattgggtgc cctaaaataa 29520
gtctctctat gcacatgaaa ggagtgaaca aaaattcatt cagtaactta agagatctgg 29580
tagctgcatt agcagatagc atcgagggaa tgctttttag cctaggcctc attgataatt 29640
acaaatgcat ttttaaaaa ttacagtagt tgttgggcac agtggctcac gcctgtaatc 29700
ccagcactct gggaggccga ggcgcaggtg gatcacctga ggtcaggagt tcaagactag 29760
cctggcctat atggtgaaac cctgtctcta ctaaaattaa aaaattagcc aggcctggtg 29820
gtgtgcgcct gtagtcccag ctactcggga ggctgaggca ggagactcgc ttgaacccgg 29880
gaggcagagg ttgcagcgag ccaagatcat accacagcac tccagcttgg gtgacagagc 29940
gagactctgt ctcaaaaaaa ataaataaat aaaataaata aataaataaa taaataaaaa 30000
tttaaaaaat gacaacagtt atggactata aaattttctt caggtcagtt ctgacttact 30060
gtcgtatccc tgaacattaa taaagtccca cgtaggtagt aaatactcaa taaatgctta 30120
ttgaattaaa ctgttgaagt tctcaggtta aaaatataat attaggatct gaaggtgcaa 30180
gaagaaggga ctttgtgtaa tttccatcac aaaaattaga tacaccgtgc agccagctcc 30240
cctcctacct actgaaagcc aaaaaccaat gctctaaaga aatcacacaa agtaacgaag 30300
gactgcatgc atgcttctta cagcatttag atttcacagc cctttaacaa ctattaaaaa 30360
atcaaaatat ctaacaaaat gaggaaaagc aaatcatctc cttatccaat tagggtatta 30420
agtgtgtatt tccaatccat ctaataactt ttgtaagttt actgcatgca tctgaagtga 30480
cctttgagaa aagattaatt taaaatagga caggagtatt cactgtagtc tgggtataga 30540
aagctctatc cctgatctga ggatatagga aaaacaaac tcagtttctc ctactatagt 30600
ctcacaacac agaatacttc tgtgaccaaa tgtgtgtggg gtgttttcta cacactaagc 30660
aagcaattaa ttctgcacag gacaccatct ggctgtcctc taattcaatt cagttctgat 30720
gttattatct acctggagat agcatcaggt cccacatgtt gagggatcaa tctcacaaga 30780
ctgtcttcca cttccaatac caattgcatg ccccgggtgt tttaccagtt ggtctgacta 30840
accaaccata aatcaagggg ctcccacgag ccccttnctt aggttcaatt aatttattag 30900
aatatctcac agaatttggg gaaacacttt acttacattt actggtttat tatcaaggat 30960
gtcacgaaga aacagatgaa gaaatacata aggcaaagca tataagaagg ggcatgaagc 31020
ttctatgccc tctccagata gaccaccctc tagcaacttc cacatgttca gctatccaga 31080
agctctccaa acccagtcct tttgggtttt catggaaact gtgttatgta ggtgactgat 31140
taaattactg gctgctagtg attggcttaa ccttcaacct ctttcccttc ctgtaggttg 31200
gaaagtctaa actctaatca tgtcttggtc tttcctgtga ccagtcccca ttctgaagcc 31260
acctaggggc taaccagtca actcgttagc atacaaaagg acacatcact ttggagatgc 31320
caaaaatttt aggagttgtg tgccagaaaa ctgcagacac aacattttat tgtgcttcac 31380
tactgttttg cagatagtgt gttttttaca aattgaaggt ttgtgacaaa cccacatcaa 31440
gcaagtctta tcagtgccat ttttccaata gcatgtgctc actttgtgtc tctgtcacat 31500
tttggtaatt cttgcaatat ttcagttttc atcattatta gatcttttat ggtgatctgt 31560
gattagtaat ctttgatgta ctactgtaat tgtcttgggg tgtcatgaac cacacccatc 31620
taacacagtg aacttaatcg ataaatgttc tgtgttctga ctgctccatc aaccagctgt 31680
tgtcctatgt ctctccctct ccttgggcct ccttattccc ggagacacaa gaatattgaa 31740
accagggcaa tcagttactc tgtagtggcc tctaagtgtt caagtgaaag taaggatcac 31800
acatctctca cttaaatca aaaggtagca atgattatta gggttattga ggaaggcaca 31860
tggaaagcca ggcctcttgc cctgaacaga tggccaaatt gtgaatgcaa aggaaacatt 31920
cttgaagtaa atctaaagtg gtattccaat gaacacatga atgatgagaa agcgaaacag 31980
```

6505

```
tcttcttgct gacatggaga aagttttagt ggtgtggaga gaagatcaaa tcagccacaa   32040
cattccctta ggccaaagcc taacccagag taagccccta actgttttca attctgtaaa   32100
ggctgagaga agtgaggaag ctgcagaaga aaaggctgaa gctagtagag gttggttcat   32160
gatgtttaag taaagaagcc atctctacaa caaaaatata caattgataa ctgatgaatg   32220
tggctacact aaacagtaga ttttcagtgt acatgaaaca gccttccagt ggaaaaagat   32280
gctatctagg accttcacaa ctatagagga gaagtcaatg cctggcttca aaggacaggc   32340
agactctcct gttaggggat aatgtaactg gtgacttgaa gttgaagcca atgcctattt   32400
accactgtga aagttctagg gcccttaaga actatactac atctaccctg cctgtcctct   32460
gtaaatggaa caacaaagcc tggatgacag cattatatgg tttgggcctg gttctccacc   32520
caaatctcat atcaaattgt aatccccaat gttggaggta cggcctggtg ggaggtgact   32580
ggatcatggg gacagtttct aatagtttag caccatcctt agtgctgttt tcatgttaga   32640
gttctcatga gatctggttg tttaaaggtg tgtggcacca gcccccttct ctctcttcct   32700
cttgctctgg ccatgtaaga agtgcataat tccccttccc ccgtgattga aagtttcctg   32760
aggcctcccc agtcatgctt cctgtacagc ccgtgggacc atgagccaat taaacctctt   32820
ttctttataa atattaccta ctctcaggta tttctttata tactgtgaga atggagtaat   32880
acacagcaca tctgtttaca tagtttactg aatatttgaa gcccaccatt gagacctact   32940
gctcagaaaa aaaaaaaaaa agattcattt caaaatacta cactcattga caaggcattt   33000
ggtcacccaa gaactcagac agagatgcac aaggagatga atgttgtttt catgcctgct   33060
aatacaatat ccattctgca gcccatggat ccaggagtaa ttcttacttt caagtcttat   33120
taaagaaatg catttcataa ggctatagct gccacagata gtgatgcatc tgatggatct   33180
gggaaaagta cattgaaaac cttctggaaa gaattcacca ttctagatgt tattaagaac   33240
attcatgatt caagggagta agtcaaaata tcaacattaa caaaagcttg aaagaagttt   33300
actccaacct tcatggatga cttttgaggga ttcaagattt caatggagaa aggcagatat   33360
ggtggaaata acaaaagaac tgtaattaga aatgaatcct gaagatgaga ctacattgct   33420
gcaatctcat gataaaattt gaaaagatga gttgttgttt ctcatggatg agcaaagaac   33480
gtagttatct gagatggagt ttacttctgg tgaggatgct gtgagtattg ctgaaatgat   33540
gaaggattta aaatattaca tatacttggt aaagcagtag cagagtttga gagaattgac   33600
ttttgaaaga acttctactc tgggcaaaat gctataaaac agcttcgcac gctacagaga   33660
agtctttcac gagaggaaga gtcaattgat ggggcaaact tgttatttta agaaattgcc   33720
acagccaccc aaaccttcag caagcaccac cctgatgagt catcagccac caataccgag   33780
gcaaaacttt ccaccaaaaa aagattatga tttgctgaag gctcagatga ttgttagcat   33840
attaagcaat aaagtatctt taaattaacg ttatgtgcat tgtatttta gacacaatgc   33900
taatgcacat ttaatagact gcagtatgtt ataaacataa cttttgcagg cactgggaaa   33960
ctgaaaaatt cgtgtggctc actttattgt ggtatatcat ttcctgtgat ggtctgggac   34020
tgaacctgca atactccaag gtatgactgt atatatatta cagtatcaca cctcaagagt   34080
taaaacgtag gctgagatcc agtcttcgat gctttgacat tcagttttct ttggtggcca   34140
aatggaccaa ctgcattgga ggtctttttcc taacactatg gattttaagt aaagtgacct   34200
aacagttcgt tgactatata tttattacca gtctttaata aatggttcaa gaatttaaaa   34260
ttacatttag acatgaccaa ttagtatatg aaaagatacc tcttttgttc ctttaagatt   34320
caagccttca tgccaatctg gtcccaatgc acttcctaca ttatctgctt tagatttgct   34380
tctagcttcc ttttttccttc ctaaagagat gaaattaaat aatataaaaa ttaccagata   34440
gagaaatatg ttagtgttct gaagtttttt atttaggcaa tgtaatgatt catatatata   34500
catacattac agcatgacta acctatgtta tctatattaa tcattttagt cattaatatt   34560
tttctgatgt agagttacaa aacagataat ctttcagttg tgtgttgagt ataaacacac   34620
tcaacttacg ttttggatgt tacacggtta actggaaggg taagaaaatt agccttcaaa   34680
tttttataat tttatatatt tttagcacct ccaaaatgta caaaactctt gtttaatttt   34740
ataatctaaa agttttttcaa agctatcaaa cttaaaaaaa tatgaagttt gtattagttt   34800
ttcaactcac tgcattttttt acaaaacttc ttcaggtatt gccaaaatgt agtatctgtt   34860
tgcaaagatg cagatgggct gagttattca atttatttta aatttcttgt tttaattata   34920
tatatatata taaaatacat acatatatat aaaatagaaa atctgaaaac ttcatgtaaa   34980
gatatataaa tatccatatt actatttcca aaatttattt tattaaattt tcttgtagcc   35040
cttttctata tggtttttaaa aaagttttgt atgagaatta atgagctagg tgctacactt   35100
accttcagtt gtatatctgg ttcttttatg tgcaatttta gcctctgatt tttcagcaat   35160
gagctttgaa gtcaagaatt cagctgctcc tgcatcgaag aaagtattcc ctatagcttt   35220
atctttaatg gcccaaatca cttcacagcc ttcaatttca tacctaaaaa caatgttaaa   35280
gttactaaga gtgatttcaa aagtctaagt aaaaaatctt tgcatttgca ataatgatc   35340
tcctgaagca aaagtaggga atacattttt aaggctaact gggaaagatt gattataaag   35400
aggaatatta acgttcttta cagatgttaa gaattaaaaa ttgaatagta aaagaatctg   35460
aagcagttta cagaaagaac ctttaagtga caaatacatg tactgaatat caagtaaaat   35520
ttcattacag tgtacatcat tagaaaatgt tcaatttcta caatacactt attatatgaa   35580
tggccccag gggtaagcag tgcttttttaa aaaatctggt tatagtgtaa tcaagtaatg   35640
```

6506

```
gatggatggc acatagctat aatattgaga atcagtcact tatttggtaa caactttttta  35700
tatcttcaaa gcacattacg gaaagggata gaaaatggaa agaatcagag ttataagcta  35760
aaaatcttaa ggatcaagat caaggatcaa ggatcttaga ggaaggaaag aatgaaaatg  35820
gtatatataa gccaccttct attactattt accactaatg taaggtaatg ggcatgtgat  35880
attttattct aggtttagat gctaagaagt ggttttccta acaatattcc tttcacaaag  35940
tccctgaagt ccattataat taaggtgatc acataattta tcacctaacc tgggatacta  36000
tctgctacta ataatcattt ttggtacaac tggtggaaat ggagacaatc ccagacaaac  36060
aagatatatg gccatcctaa ctataatagg attttatcta aacttgcgat actaataaaa  36120
tactgtaaaa agttaaggta ttaatttttc acatttcttt acggtacaaa gtattgtcat  36180
ctttatttca cagactgata taacataggt tacacgactt ttcaagacta atcaataaac  36240
agattacgaa aaaaggttta gtacatctga atccaggtca cttgatattc atacttttca  36300
acatatggtg ataaggaact ccttgcttta cctaataagt cttcgttttt ccagctcttc  36360
tatgtcagta aacatagaag attattgggt gaacattcta ttttatgtta ctctggtcat  36420
atagcattac tgaccagcgg aaagtggaat acacacaaat ttggtaataa agtttgtatt  36480
tcaatttaca tacaggcata cagttatcat gtaatgcttt cttttttgaaa aactgggaat  36540
ttctctatat taccattttt aaatttaaag taatattaca ctataacacc tatcagtgca  36600
cttcagcata ctgatgactg actagcagac aaagttatta caagtaacca caagaaactt  36660
cagtacttgc tctacctcct aggacacctt ctaatcctct tttcctgact tgaactatgt  36720
tctcagcaag atgcacagtt tgacgattat catcacacag aggggaaata ctgctttcat  36780
tttgaaaatg actctacaga agcagacaat gagatattac ggttttgtga agttatgaaa  36840
aacagtatct gtttgaaaag gaaaggatta acttacactt agaaaggaga aaacagataa  36900
taactgaaat aaatgtataa tgaagaacat tagtattagt ttcactgaaa cacagtgtag  36960
aaagggtatg ggtatgccaa gtttcacgag agacaaagac ctaatcacgc agcagacctc  37020
aagtcagaga ataacattat gtgggtccat ttttaattac caaagaagag cttactaaat  37080
acaaaactat gagtttttatc caattataca gtcttcaatc tccaacttaa agaaaatgat  37140
gaataggatt aaatgtaaga ctctgaacat ttttgaacat aaaatttta aatgtaaata  37200
acaattataa taatagtaag tgatactttg gtgagagctg atagagaaaa tctggcatgt  37260
atatactata cacaaggatt tgaagcccca tttacaataa atctatacct cttccctctt  37320
ggcccacatt ttggttttga ccctttctct gtatttctcc atataatgcc acaaacttca  37380
taataacaat aatgactgtt acccatagta ctcaggcaat ttaagaactc ttacaggctt  37440
ccactgggtg agatcatccg ctaaaagagg ggcaaaaacc tagtctgaga gttggattga  37500
atgcaagtga gcaaagatat ggctttggca gagtccttat tttgattcaa atttgtcctc  37560
tttgtggttt gactcaactt tatggcctga aaaagatcca gactatttca tgtcaatcat  37620
ctgctagagg ataaaatcat gaagtgaatc aatcttctgc aggacacagc aggatatttc  37680
tcaatggttt ttgaacttgt aatatcgtct taagatgaaa attaattaat gtgttcacat  37740
ttcccaagct accaaaaaaa gagctgcaag aaccacatat cctaaaacag gagtcacaaa  37800
cattttgggt gacactggcc agacaggtaa cataaatgag tgtagcagga tttatcatat  37860
aagcaataaa aagtggtgag ggctatcact agaaatctca aaaggtgtaa atatttgaat  37920
tatttttaaa cataaaatat acttataaaa cacatttatg ggccaaattt ggccaatcac  37980
cttgagacct aaagcattcc caaaacatat atattttata ataaaatttc tacaattacg  38040
gattccacaa gagctaaaaa aatatggtgg attttttcccc ttgaaaacat atgaaaatta  38100
tatttatctt tgattttcag aataaaaaac attttccagt ctgccaacaa atcacaagaa  38160
tcacaaagca attgtttaat ttaaaaacaa attattttta aacaatttaa atgttatcat  38220
atttaaaaat atatacttac actaactcaa gtgcaatacc accgttccct atgatcatta  38280
ttctttttagc tttagtaagc tgtttctgaa attcctatgt taaaaagaaa ataatgaggt  38340
agtattttgt aatagtgggc aataatctga aatatgaggc ttcgataata ttctaaaaat  38400
gtaaatattt tattgaattt gtaaaggaaa aaaatgaatc tcactttccc actgtatcag  38460
ggtacatcct ctcaattaat ataacaaaag tccccctta tgctttatcc caagctgcct  38520
ttatagcaat gcctctcctg attttccttt cctttaggt cattacattt acagtacttc  38580
agaatttcgg caggaggcac tattaactta ccacattccc aattatttga ccaaatcaat  38640
tattctttct tttcacctag actctcagtt tccctagagt tactcaacac ttaaaacttc  38700
taggaatgag aagctcagca gcatagtggt taagagcaca gactctggaa gcactggctc  38760
tagcaattac taactgaatg actttgggca agttgcttac cctatctgca tctcaggtcc  38820
ttcaactata aatggaaata agggactata tatcctaatg tttctgtaag gattatgtga  38880
gatgacacag acaaagctgg taggagtagc acgcacccaa taatgtcaaa cttctactaa  38940
aaaaaaaaat gttattaaca ttctaagaca gatacattga tgcctccacc ccccagaaaa  39000
aaaagatcac aatgagctta gagaagccag tggtaaatgt aaatgacagt taaagggtgc  39060
agcacaccaa catggcacat gtatacatat gtaacaaacc tgcacttggt gcacatgtac  39120
cctagaactt aaagtataat aaatatagat atattaaaaa aaaagagag agagaagcca  39180
gtggtaattc tttgggcact ttcagaagta tagaatagtc ccactgcttc agaatgacat  39240
ctggccctcc tactaaattt atattaaatt tatctccaaa cttataatat tcactgaagc  39300
```

6507

```
tgacatcttt aaaattctcc aagaaaaaaa caactgaagt ttatttcagt ttgtccttca 39360
ttgaggatat tgcaatttaa gaaacatctg caagagcact ggacctagag gtgaaaagca 39420
caagtttaaa ttgtgtatct gatagactta acagctaaat tagtatagat acatacttaa 39480
tctcttgacc tcagtttcct atttgtaaat tgggagtaat aatcgtcaca caggattatc 39540
atgaggattc aatgagttca tgtatgtaga ggaccgagct aaaacagtta tgagctcaat 39600
ctctgataat atgaacttaa attgtttata agaagataat caagttcctt taattttctc 39660
tcaattccta attattaaga gaataggctg aaagaaaaca ttattaaatt ttcagaatat 39720
aaattatatt aatgcaaaat catcatgtca tgagacagaa caacgaactt gaggttagac 39780
atagtattgt gaaaccagga agagcttctt ggcaataagg gttaataagc cctgaattaa 39840
attaaattac caaaaggaat ttgtataatg ctccaaaaac agatgtttca ccttattggg 39900
atagtttatc tagggcagaa caataagcca agtgaccttt tctgttctat gattctatca 39960
tgattttgta ccacaaagat ctttttgaatt ttttttgctg gagaataaga tcagtacatt 40020
ttgaatacgc ttcacctttt tggaaaaaat tgttatatta tttaggttgc aaatcacata 40080
ttccccaagt agagtaatga atgtgtgtgt aatataagtt gttaatattc agcacagtca 40140
ttatatctgg gttatctcac gctgataaca catcagcatg aacttaaaaa catagtgtca 40200
actaaaaata taaaattggc aggaataggc tgggcacggt ggctcacgcc tgtaatccca 40260
gcactctggg aggcctaggt gggcggtcac gaggtcagga gatcgagacc atcctggcta 40320
acatggtgaa accctgtctc tactaaaaat acaaaaaaaa aaaaaaaaa tcagccaggc 40380
gtggtggcag gcacctgtag tcccagcttc tcgggaggct gaggcaggag aatggcgtga 40440
aactgggagg cggagcttgc agtgagccga gactgcgcca ctgcactcca gcctgggcaa 40500
cagagcgaga ctccgtttca aaaaaaaaa aaaaagaaa gaaaattggc aggaataaaa 40560
cataaccact ctgtggttta ctggtcatga aacaaaaatt tcccttctgc ccttacagtt 40620
taggaattgt aagtggaaca ctttaattca aatgtagaaa attctttat tttccttctc 40680
acgatccaac cttaaaatgt tacctgagca ctgtctgtat cacggattcc taatacataa 40740
ggatttcctt cacatatcaa cttttggttta gctccagcac acagacagag tttcttatat 40800
acgtgctgat tgccatcttc tgttacaatg cactgtaaat acatcaaaca atgaaagaaa 40860
agggagacac ataatcaaca tggatacaac ttcacttttaa actaaaaatt caataaggca 40920
aaagcaaaac ataatatatt aaggttgcct cttggtggca ctcagttctt tgttatagca 40980
attacaaaac taagcatgag aatacatgta ctaatccagt tattcttaaa tcattttaag 41040
ctcatgaacc attttgagat ctcctgaaaa ctagtctttc tcccctggca taaaaaggta 41100
cattcacaca aagttttgta ttaaacttca gggaatccca tgttggttga aaaggtatgt 41160
tgaccccacg ttaaaaacaa aacttcaaga aattttaaa tttaagcatt ctcattatac 41220
ctgtgacagg ccttgatgaa gatttctgat ctcaagggaa gttactgtaa gaagacctag 41280
taattctaac catatcctac cttcatatct attatgagta cagaaaagca gtgagtggaa 41340
caagaggtta tggtatgtct tcttaatcta aaaagactag aagtgcttaa aaaaaatagt 41400
acttatattc ttaagtacaa ataatgactt tacgagcaaa ccaaatgctt ttggggtata 41460
ttttagtata agtaaaaaat atgataatct ttaatcctag catgtattgg ctttaaattt 41520
atattaatta ataacataaa tgggtctaaa actacatatc agagatatat tgctttgtt 41580
ctttaatact gaatgaaaaa ccacatataa atagtagcct ttagaaaaca tttaaacata 41640
aatgcatgct actatgagag atgctcaact ttgttcgaat gatttagggg ttaatgtttg 41700
tgccaagtgt ttgacttaca aaccttgtta aactgtatca tagcacttaa catccaatga 41760
gacatttata actcaaatta attcttcagt tccataacaa atacataaaa ccagtaatcc 41820
agcatagcat aatccatgta gaaatttat acaagtcttc ttttaaataa tctggttaga 41880
atttcaactg acaagaacaa aagttaatta taggcactga caaaacttta aaaataattt 41940
gcatttagct gctgtaaaaa caaatagcac aaacaaacac aaaaactctt tccattagct 42000
actgctaaat ttttggcaag agacgtgaaa gtaaaacata ctatctctaa ttcactaaaa 42060
aatgtaaagg acacttctcc agacggaagt gagccacaca ctctgcgtcc tcgcctcact 42120
aggaaactac tgaagttcct ggggaagcac agtagcattt cataagaaca aaatggatgg 42180
ggaagagaaa acctatggtg gctgtgaagg ccctgatgcc aggtatgtga aattgatatc 42240
atctgatggc catgaattta ctgtaaaaag agaacatgca ttaacatcag acatgataaa 42300
agccatgttg agtggcccag ctcagtttgc tgagaatgaa accaatgagg tcaattttag 42360
agagatacct tcacacgtgc tatcaaaagt acgcatgtgt tttttttttt tttagatgga 42420
gtctcgctct gtcgcccagg ctggagtgca gcggcgtgat ctcagctcac tgcaatctcc 42480
cgggttcatg tcattctcct gcctcagcct cccaagtagc tgggactaca ggcgcccgcc 42540
cccacgcctg gctaattttt ttttgtattt ttagtagaga cgggatttca ccgtgttagc 42600
caggacggtc tcgacctcct gacctcgtga tccacccgcc aaggcctccc aaagtgctgg 42660
attacaggt gtgagccacc gcgcctggca gtatgcatgt attttacata caaagttcgc 42720
tacactaaca gctccactga gttcccgaat tcccaactgc acctgaaata gcactagaac 42780
tgctgatggc tgccaacttc ctagattgtt aaataaaaga aattataata aactgttaaa 42840
aaaacaaaaa tgtaaaggac aatggataag agaaggcaga catgcactgc atgtgggata 42900
tttttcaaat ggtaacggga agcactctga ttcattcaaa tgccctaaca cataaattcc 42960
```

6508

```
ctgacaatcc atttagcata ttttgagagc ccacctcaat ttacaaataa attgacaaat  43020
atattacttg gaatatgtaa taccactata agtattagaa acttatctgg tttggggatt  43080
cagattttt attttttcct gataaaattc agtactttt tctctcaaat tacttgtgtt  43140
tcaaatgtgg tatatatgtg ttttatccct aaaggagata aaacacatct ctaatttatg  43200
agctagaact cataaattag aactgcttat agaaacaact acaaatctac ttctcatctt  43260
acctgaagct catctgagga tactgtaaat catctaacaa catcctttcc tgagactgcc  43320
ttcttcattc tcatgtaaag ggttattgag tcctgccaaa tttatagcag aaatctcact  43380
caaatctggg atattttta caactacatt gtccctgtct cagttcagac cttacatcat  43440
ttttcaaatc aatttttaa aaattattat tatccttttt gagacagggt ctcactctgt  43500
tgcccaggct ggagtgcagt ggcgcaatca cagctaactg cagccttgaa ctcccaggct  43560
caggtgatct tcccacctca gtcaccaaag tagctgggac tacaagtgca cgccaccatg  43620
cctgattaac ttttgtata tttttgtag atatgggggtt ttgctatgtt gcccaggcta  43680
gagtcgaact tctaggctaa agccatccgt ctgccttggc ctcacaaagt gctggggatt  43740
ataggcatga gcctgtacat aatttcctga ctcttcacat aattttgac tatcataacc  43800
accttctagt ttggttggct actagccact tgttcatgct caacactcct atcagatgta  43860
tcttccttaa aaaaaaaaa aaatctattt tatcattgat gccccagctc ttaaaatcac  43920
cttacaattt ctcccaaata taaaacaaac tcaacttctc tctttttttt gagaaggagt  43980
ctcgctctgt cgcccaggct ggagtgcagt ggtgcgatct gggctcactg caagctccgc  44040
ctcccgggtt cacgccattc tcctgcctca agtctcccga gtagctggga ctaacaggtg  44100
cacgccacca cacccggcta attttttgta tttttagtag agacagggtt tcaccatgtt  44160
agccaggatg gtctcaatct cctgacctca tgatccgcct gcctcagcct cccaaagtgc  44220
tgggattaca ggcgtgagcc aacgcaccgg cccaaactca acttcttata gtgtgacatt  44280
aaaaacccctt caggttctca cttacttatc ttctagcctt gattgccaat ctcctttact  44340
taaccacacc ctaatccctt tgacatctct attcttcata tttctttttcc tttcttgggg  44400
tctttgaaca ttcaatctcc ccttcctgga atgcctcttt ccacctgggg aactcttaat  44460
ttcactcatc tgttaatacc cccctcattt tactctctct gtaaagtctt ccttaagccc  44520
tgatatcaga gctttgatag tatttcagtg actgtgtttt ttatatgtca atataattat  44580
agtatgcatg ttcatattcc ctttgacact gacagttcct aggagccaac acctcgtatt  44640
aaccctactg catcccagca cctaatgcag tatccagaac acagtggaca ctttataaac  44700
attaatgtaa tttgaaatgt gaagactaaa atcccaaatc taattatata attccaataa  44760
acttacaaaa actgtatttt ttctaataat actggaaatc aatgtcacta aactttacat  44820
gttaaaaact taaatggtgg tggtagtaga gctggagtga aaagaggcag gcaaaacttc  44880
atcaagattc aacaatggaa aatgttatta agaaacaat tatcttacgt gttcttcact  44940
cttcagttgc tttacgccag attctataac cttaatgttg ggaaagcgtt ttcctaacat  45000
ggtacttgat tgttcttcaa catcgaattc ttccaatatt ttagaaatct gtatagatcc  45060
aagagattaa aaatgtatat ttttaaagta ttttctttca agaatcttaa ataataaaaa  45120
tactttgctt ttacacacta ttttgtgttt ataaacaaa caagttagcc aactgcacta  45180
tatagagtgg aaagaggact agactcagca tttagagact taaatatttg cttggccgct  45240
cctgggcaag tcaggtgcta caagccatag tttcctggct aataaaatga gagctgacct  45300
gtaaaatgag gggtaacacc acttacattt ctacagttta gccaaacagc ttatttattt  45360
ccttatcctt caagctttct ctatttacta gcagaccttta tggtcatcta gtctttgcac  45420
tcttctttcc tgttctataa aaccatcagt attctagact cactttcctt tctgtccagc  45480
taaagttcaa ttgtgaatca tttcaccttt tccctaaatc ctttacttcc ttgctctctt  45540
atcctaaact gttaacctga aaaccctcaa ccctataaac tatctgcttg ctctagtcct  45600
aagcccagtt tgctgcagaa agaccacaca gccttacaga ttgatattca acctcagctg  45660
ctccttaaaa actgcatgga aatcttactg catggccctg acagttctca aacctttttgg  45720
tctcatgacc ccttttacagt cttacaaatt atgtaagaac ctacttctag ggttatttaa  45780
ggatcataga atagatctga aaccttttaga aggccacttg atgcatggta agcacttaat  45840
aaatgtgaat tattagcagt aatcttttt ctcctttaaa aattatacaa gtcatgaatc  45900
atgctctttg taacactaaa caaacaatac ataatacaga gtaaatgtta aagtctctat  45960
cactcttcat atctcatcct taatccctca ggataagcac tagtgacttt ttggtgttat  46020
gttctatact tttaatctcc ttatcttatg tgcctagcac attggttaat atataatata  46080
ggtactcaat aaatcataaa gataatgcca tttcctactg ctgtacacag aatagctgat  46140
atttgtatat ttgttattgg cacatttaag ttcacaaccc tgtgaagtaa gcaaggaaag  46200
tattaaccta atactacagg tgaagcagct tacagagatc ttccaaggct acccgaccag  46260
taaataagag gcctagaaac caagctttt ccttctgttg tatataactt acaaaaccgg  46320
caaaaactga attcaagtct cacaactctt ggattattat actgaattag gtcttctgga  46380
aagatactta tgagacccag ctatacatcc ttctcttatg tatacagtct tagcttgtca  46440
ttaaatatgt actttttacct tttaaagatt aatagctata attttttcctc tatttctccc  46500
aaactccata actctttggc tatacctaag tactaagcta tcatatgtat ctctatttag  46560
gttataaagg gacaacatgg tatatgccac taaactaccc ttggtcttat gggtttacaa  46620
```

6509

```
catgagaaaa ttatattcca ttatcaggat attaccagag acatcgtatt aaatgaaggg   46680
ctatggtagt agtcttcact gaagggtggg aagaaagatc agaatgtacg tttttcgaca   46740
ttttagaaat tttattttgc ataggcttta taacatttat aattgtagtt ctgtagctca   46800
tacacataac ttattagtat acatatattg ggatgtcagg gcaaaacttt ttaacagttg   46860
agctacagga aaaaaaaagt ttggagatga cttttctatg atactattac ccaactgttc   46920
ttagactcct actataatgt gaatataaat taatggaata caaagtattc tgagacacta   46980
attatctata agtataaact tggcttggaa gcactttct gatgtgtaaa cacacacaca     47040
cacccctacc catattgata ataaatatca tgtatatttg tacccatttt agatttgcag   47100
agcatctttc ctgaaaattt tttattggaa actttctcaa aagtaattct aagtggaagg   47160
aaaatggaga aaaagaatag aagattaaaa atttagtatc attctgggag cttctggtat   47220
tctatctgaa taattctcaa ctcgagcttt tttaaaataa ctctcaaaag aatatttgta   47280
attttaaaca attaaaacac tccagaatac atggaggtat tgtcatcaag atggctaagt   47340
aggagatacc agccttcatt cccccattaa aaaaaacaaa tatagacaaa tcttcacaag   47400
ccaaaatagc ccaaagaggg ctcaacggcc cattaaacaa tctgcagcaa cacagtggag   47460
catgaaaatg gagaataacc acataaaaga atcaataatg accctggcat acctgagaaa   47520
ctaggagata gctaggagca aagaaaggca gaggctatca gtatcagcca catggtgggg   47580
accactgtgg taaatggtgg cctgcactgc agaggaaact ggcatccctt gctactgtga   47640
ggggaccaac aaccattcct gccagggaac cctagagtgg gagacatggc ggcatatctt   47700
gtctccacaa agaagtggcc aatgtcaaga tgctttggca aaggagtcac tttgtcctca   47760
accctgtgag tgttccaacc ccagggccat ggtcactctg agaatgccta cacctcagac   47820
ccaggttcta cggcccatac tgggcccacc tacatctcag acaccagagc catcaccata   47880
gtaagctagt ttgcactttg gggcctgcaa ccaatcctca ctgcacatgt ctgcaatcta   47940
ggcactggct cagctgccat tgaaagctag gccctgccct gacactgaag ctgctgtaac   48000
tctgagcaca catgtgttcc cattcttggt ttccctggct gcctcacaag catcctcacc   48060
tcatattcta ttaccaatat agcagtacgg gtacctgcac cctaggcacc aatatcatta   48120
cagtcccaga tcccagaact ttaattcctc cgtgtatgcc tgtgttttgg gcctcagctc   48180
tatctgctcc ataggcacca cttatcagac accagcgctg ctgccactga acccagaagg   48240
cagactcagt gccaacaggg atcccctaag ccacaacttc ctttgtggga gaagaaaaga   48300
ttgggaggct attagcagcc attgacattg aaaaccccaa caaccctcac taccactgca   48360
gacatccaga gttggatgct gaggatccct gcaatcttca acaacaatta actcagctga   48420
cggagctgca cagactacaa agtgggcacc ctcactggtg ccagaactgc tacatcccat   48480
ctagcaagca gccctcccca taggggaagg tctttccaca gcaaaactag cccatacttc   48540
tgaaaacagc aagtgtgtca tcaaatgtgc aaacatcaac ataaggcagt aagaaacatg   48600
ataaaccaag aagatatgcc accaaaagaa cacaaatgtc agaactgcct aagaattcaa   48660
aataattgtt taaagaagct gaaggaactt caagaagtta caaacaattc aattaaatca   48720
gaaaaacaat aagcaaccaa aacaaaaaat ttaaaaagtt atttaaaaac taaagcagaa   48780
attctgacga tgaaagatgc aatgaatgaa acaaaaaaaa atgcaacaga ctatgtcaac   48840
aagagaactg atcacacaga agaaacatc tgtgaatctg aagacagatt atttgaaaat    48900
atacagtcag aagggaagaa gaagaaaaaa gaatgaaaaa gaacatagaa gtagggaatt   48960
aaaggatggc atcaaatgag caaatctttg aattataggc gttatagaag gagacaagaa   49020
agacaaagga gtagaacatg tatttaaaga aataacaaca gaaaactttc caggctgggc   49080
gcggtggctc acacctgtaa tcccagcaat ttgggaggcc gaggtggatg gatcacgagg   49140
tcaggagttc cagaccagcc tggccaatat ggtgaaaccc cgtctctact aaaaaataca   49200
aaaaattagc tgggcatggt tgcgggcgcc tgtagtccta gctacttggg aggctgaggc   49260
aggagaatgg cgtgaaccca ggaggcggag cttgcagtga gccaagatcg tgccactgca   49320
ctccagtctg ggcaacaggg tgagactcca tctcaaaaaa aagcaatcaa ttcaccataa   49380
tcaagtggga tttattcagg gatgcaaaga tggcttaaaa tatgcaaatc ggtaaatgtg   49440
atataccaca ttaacagaac aaaggacaaa aatcatgacc atctctacag atatagaaaa   49500
aatattcaac aaaattaaac gtcttttcat aataaaaacc caacaattag gtatggaagg   49560
aaagtaccac aacaaaaaaa tggtcatata caagcctata gctaataata tattgaatgg   49620
agaaaagctg aaagcttttc caagatcaag aacaacacaa ggatgcccac tctcacaact   49680
tctattcaac acagtactaa agtcctagct agagcaatta aattaggtga cagaaagaaa   49740
taaaaggcat ccaaattgga aagattttaa atagcttgac ttagccattc cacaatgtat   49800
acatgtatca aaacatcatg ttgtacagca tataactgta cttgtcaatt tttaagaaag   49860
aaaaaaatac acaattaccc taactgctat gcaagttatt gcaatttttt caaattaata   49920
ttaacaagtt atacaaaggt tcttacctgc ttgaaatttg taactgcttt aataacagga   49980
gaagctgtta ccaagagaat atcttccgat ggaaagtgag tagccaactt attttttaaaa   50040
agagagaaaa aaaattagga caaattactt taagtactgg tatatatggt ttggggttga   50100
gaataatgca attttaataa tgtaattaat ctagaaaatt aaaaacccac tgttcctcat   50160
ctaaaggtct ccattatcct tggtcttgat ggggcaatgg tgaataatat taaactctga   50220
tactgagaaa ataatatta cagtaaacac taacaagaa ctcctgaaca agaaaagtga     50280
```

6510

```
tataaagaaa tatcctttat ttacttcaac tatttttat accaatttag agttataatg     50340
cagaggatga gaataaacta tcttcctaat taccagttaa accaacttct atttatctta     50400
aaataatatt tcatttgtct tcaatgggat gaaattaaag caaaccctca atattaaaca     50460
cttagaatat tggtctaact ttccccaggt gctctggcac tcctattctg cctcttccag     50520
tcagtacata ttgtgggacg ataaagccat tttaataatt gcttccacaa aatttagagg     50580
tataacttgt taatgtttca ttattttcct ttagctacaa cctcggtctt cttcactctg     50640
tacctgaaag cattttctta tctcaaagtc tggttcctcg acaccaccac cctcaataat     50700
ctggcttcta ttcctactcc atcactaaaa cagcatgttt gagggatcta tgaatcctta     50760
aaatccaagg gattatttat ttttttttta atggagatgg gatcttgcca tgttgcccag     50820
tctggcttca aactcctgga ctcatgcaat cctcccacct tggcctccca aagttctaag     50880
attacaagtg tgagctatcg tgcccaacac ccatgcgatt cttctcagtc tcattttatt     50940
tgaactttct atatttgaca atatcattac tctctccatc tttctttcct ctgtatattc     51000
tgtaatttat atctctgctg tttccattgc tagatgaggt cctcaaaact tctttatact     51060
actgaaatca ccttcgaatt ggctctccag tttcacgtat aaaccagctg cctctgccac     51120
aaatacattg taactaatca tctttcaagc cttttcatat gatcaagtta ctccactgct     51180
caaaaacatt tgactacttg taaattcttg ttaagttctc agcatgctaa gactccttat     51240
gatctatgct ttaagcttta ctgctccctg atgatccatg cttttccact ggagatgaca     51300
ttcttttctt gaatacttgg taaactttca ctcattcttt cataatgaga ttttaaaaat     51360
accttctttg attaaaaaaa tttcctcttc cctaattcac tccctacata ctccacaggc     51420
acctctaaga taaccgttga tatctcttgc atagacatac aatattgtaa tattgtctct     51480
tccagcaggc tgtgagtccc cagcatggta tataccatgc tgttcatagt tgaacactca     51540
gcccttaata cggtgcctgc atcatatatg tttacttagt gaataaacgg aaaatacgca     51600
tccaacgatg gaaacacttg agtttcttcc actatttctt atgacttcag tgattgctca     51660
tgtttacttt atatcaacaa aataatgtag aactttttgg aatacacaca tgtatctgaa     51720
tatatatggt ctggctattc agtataatca agaaagcaag ccctacatgc atttaatcct     51780
tcgctgatta ttttacaaaa ctttactaga aataaagttt cttctatctt gggagttcga     51840
agtatagaaa acttacatat gggattcttt attaattagt taagatgcac taaagacttg     51900
gcaactatct ggaaactaaa ctcaatcacc tacgataatt aacaaagggg gctgagggcc     51960
gggtgctgtg gctcaggcct gtaatgccag cacttcggta ggcggaagcg ggcagactgc     52020
ttgagcccag gagttcgaga ccagcctggc caacatggtg aaagcccgtc tctactaaaa     52080
atacaaacat tagcggggcg tggtggctgg cgcctgtaat cccagctaca ggctgacgca     52140
acagaagaat cgcttgaacc cgggaggcaa agcttgcatt aagccaagat cgcaccactg     52200
ccctccagtc tgggcgacag agtgagactc cgtctcaaag aaaaagaaaa aaaaataaaa     52260
agaaaggggg ctgaattttt tgtctaaata caaagtcctc atgtctgctc tgacattaca     52320
aggatctgag cacggatcag ccagctttgg tttctcggct ataatttgcc tcccactcct     52380
ccctgcgcct aagagaaagc tagtgaggtc atctgaggac caccaagcag tttctaaaat     52440
ctgggagcaa taagtgcgga aaagggcgca gcaaaaaagg aacccggaag aagaaaaagg     52500
gagggggtgg gaggaaggcc tccagtgcta tcccctttgg ggtcggggaa agaggcggaa     52560
ccgcctgagc accgccctac ctgctccgca caagtgacgc ccgcgatgcc gccgccgacc     52620
accacgaact tccctgccgt cgggggaggg cgcgctgcct ccatgctgcc ggactcccag     52680
tggtttactg a                                                         52691


<210> 8821
<211> 503
<212> DNA
<213> Homo sapiens

<400> 8821
cagctgtttc tatggtaatt ttttgttcat tgttatcact tatagcttac tctattatgg       60
cttttaaaa aaaaaatctc tgtatatttt cttatcctta cttgtttgct tacttttcta      120
accattagtc taaattgaca tttaggtaaa tttgctttta agttgaatac ttaagccaat      180
gattcagtca ttttgtcttt tctggggtgg gtagtgccta ctagacattt aattgtgctg      240
cattttaata tttcttacca ttcattataa actttttttt tttagacagg ctctccctcc      300
gttgcccaga ctggagtgca gtggcaccat tttggctcat tgcatcctta acctcttggg      360
ctcaggcgat ccccccacct tagcctcctg agtagctggg actactggtg cgtgccactg      420
ccatgccttg ctaatttttg tacctttttt ttttttttct gtagagatgg gattttgcca      480
tgttgctcgg gctggtcctc gag                                              503


<210> 8822
```

6511

<211> 503
<212> DNA
<213> Homo sapiens

<400> 8822
```
cagctgtttc tatggtaatt ttttgttcat tgttatcact tatagcttac tctattatgg      60
ctttttaaaa aaaaaatctc tgtatatttt cttatcctta cttgtttgct tactttttcta    120
accattagtc taaattgaca tttaggtaaa tttgctttta agttgaatac ttaagccaat     180
gattcagtca ttttgtcttt tctggggtgg gtagtgccta ctagacattt aattgtgctg     240
cattttaata tttcttacca ttcattataa acttttttt tttagacagg ctctccctcc      300
gttgcccaga ctggagtgca gtggcaccat tttggctcat tgcatcctta acctcttggg     360
ctcaggcgat cccccccacct tagcctcctg agtagctggg actactggtg cgtgccactg     420
ccatgccttg ctaattttg taccttttt ttttttttct gtagagatgg gattttgcca      480
tgttgctcgg gctggtcctc gag                                            503
```

<210> 8823
<211> 305
<212> DNA
<213> Homo sapiens

<400> 8823
```
attaatttat gagcagctgt tgctgtatac atgtaattat gtttgactac aaatgcatct      60
ttacaaaatg ggcctagtgg aatcataata taaatggttc agattaactt aattcagatt     120
aagaaaattg tttcatactg aggtaagcga ttgaaaaatt gtctatttaa aaatgcagtg     180
cattttaaag agttactatt tgaggatcta aaatatacag agaaggctgc atattttact     240
ttgatcttat taccatccaa aagaaagctt acatagaaat gatttgtcac tttctgcttt     300
ctgaa                                                               305
```

<210> 8824
<211> 305
<212> DNA
<213> Homo sapiens

<400> 8824
```
attaatttat gagcagctgt tgctgtatac atgtaattat gtttgactac aaatgcatct      60
ttacaaaatg ggcctagtgg aatcataata taaatggttc agattaactt aattcagatt     120
aagaaaattg tttcatactg aggtaagcga ttgaaaaatt gtctatttaa aaatgcagtg     180
cattttaaag agttactatt tgaggatcta aaatatacag agaaggctgc atattttact     240
ttgatcttat taccatccaa aagaaagctt acatagaaat gatttgtcac tttctgcttt     300
ctgaa                                                               305
```

<210> 8825
<211> 16807
<212> DNA
<213> Homo sapiens

<400> 8825
```
aggatgtgct gatggagctc cttgagcagt gcgcagatgg actctggaaa gccgagcgct      60
acgagctcat cgccgacatc tacaaactta tcatccccat ttatgagaag cggagggatt     120
ttgaggtatg agagtgcctt tttgttttt tcctatttga gagcatgacg ctgtgacata     180
tacccagacc tgcatatatg tgagagagga agcaggccat gggccagaga tgagtggggg     240
tctctgaccc tccacgttac gctgaaggtg gtggccagtc atcatctcca aatagtcatc     300
gggtatcacc cagacctggg ccctacctct gtggagaccc ccacatctca aactacagag     360
taaccggcac tccactttcg aaaggctgcc atgaacagag ttttgtgatc accagttgtc     420
cctttctga gaactcttcc ttactccacc tgcgtgaaaa aatggtgtcc cttccgtcca     480
tcctgggctt gggaggtcat ccagtttctc taggcatatc aaacagagca ggaaaagcaa     540
aggccaagaa tcacgttggg gaaccatctc tgacatcgca tcttaacttg aaaacagagt     600
ttgcttactc taatgtggaa atgtgatggg tcctcacgtg tgggctggcc tttgggtagg     660
```

```
aaatgttacc attcattaat gatcactaca agttgtgcag ccaaaatgtg tgtgtgtgta    720
ttttattca agttcaagga cttttcacct ccattatcac atttgttatt ttaaaatcga    780
ttctcctctt tgcacatggg aagaaatggg ctttgttctg ctttccagag gctggcccat    840
ctgtatgaca cgctgcaccg ggcctacagc aaagtgaccg aggtcatgca ctcgggccgc    900
aggcttctgg ggacctactt ccgggtagcc ttcttcgggc aggtgagcct cctgtccatt    960
ctgcagactg tcctaagtcc tttaaaaaaa aacaaaaaca aaaacaaaaa aaaaactata   1020
ataaagttat atcttataaa ttctctgttt tctgtaattg ctaatttgat gaatttgtca   1080
tatttagtat gattcttatc ttcctcagta gtaaactttc tgcttttttt ctttcttcct   1140
gtcttttctt tattactttc ttaaggcagc ggtaagttct tcctccttaa gacattctta   1200
gcaacatctt tggtacttca gtgtggtttg caagtttgct tttcaagtct gtatgtttat   1260
ctgtctagtt attacaaact ccaaaaaaat taacatttta ttccatttac agaaataaat   1320
cacctgtttt cttatatatc tatattgcat gtttttaaacc aaaattaaga ctttctggtg   1380
tcctttgtgc ctgtgcatct ttatcctttg tagtataata tctccacaag tatatttaca   1440
gtttttcaga aaccctatag gaaagggttt atctaaattt aacttaaatt ttaaccttcg   1500
agtcccttaa cattattaaa tggtataaat tataatacat atatttaggg cgtgtggttt   1560
tctatgagca ttatataacc ttcaatttat tctgttattg tcttttataa ctttatagca   1620
ataccagttt acagacagtg aaacagatgt ggaggtaatt acagtaaatg cctaaaaagc   1680
aagtaatata gtgaaattac tgcgtctaaa ctcctagttt gatgtggatg ttttttgttt   1740
catgctagct tgcattttttt tttactgttt tgtgcaccat tttctctctc ttaatttacg   1800
tgagaaactt taaaaaattt tcttttaaac attaacccca gttggacttt ttaattttca   1860
acctttttca cttcccatgc aattctaagc cttgtagtca aacatgattg gtgctaaaac   1920
agatgatgac tggtgatatg aaaatatttt ctgatattga gctacaggtc tttaatattt   1980
ttttctcatc ggtaaagcaa aatacaattt atacaagctt tacctaactt ttactaaact   2040
tactccagac ccccaaacgc ttcagttcat gccataaaat cctgtgtgca tgggagccat   2100
caggagaagg gaggcatgtc cacttctgag cctgcctgtc gtgggctgct catcatttttc   2160
tagtgagttc tgcttcttgg gaaagtgaaa caggcttgac tcccattaga cttccctggg   2220
acagcttagt cttgtatcca aaatctttca tttcactcaa cacttaatga ctgcattctt   2280
gaataagttt gcaatgttgt gttttttcctt tacctttgca cctagacttc atgttattag   2340
cattttcttt ctcattcaga aagcccattt cagcaggatt tttagaccca ttccttttttt   2400
tcccccttgt aataaaagaa cgcttcctag gtggtaagcc ctgggcttac gttcagggat   2460
agctctaatt gtgctttatg tcacagggat tctttgaaga tgaagatgga aaggagtata   2520
tttacaagga acccaaactc acaccgctgt cggaaatttc tcagagactc cttaaactgt   2580
actcggataa atttggttct gaaaatgtca aaatgataca ggattctggc aaggtatgac   2640
catgtttgga taagtttcat agcaatgtaa tgttgtgatt gattacatat tatatatttt   2700
taaatgtata tagaaaaaaa cacaagaaaa atattaagga ttgttggccg tgagtggcag   2760
gtgtattttc ttcctgatac ctttagtgct ttccattaca tgcttgacat taaaaaatct   2820
ttatcgccta atttttgaaa catctaattt tacaaaataa ttaacgtctg acaggatatg   2880
tcatttttag tccagctatt tagaaactct gacagaatga ggcccgtggc ttcgctactc   2940
actgcacctc ttcctgcatg tagcacatga cttgccactc tgtcactgac ggctggatgt   3000
aaggacaggt gaacagatgg gcggatgggt gaatggacac atggacaggc caaggaatga   3060
actcaccagc agcgtgactg tgggaatggc gatcattttc tgcttagaga gctgtcctct   3120
ggcattctgt tctcatgaag acccttttgg aacctgcacc tttgtcctgt acctttgtgt   3180
gtcccaccct cctcaggaca tctccaggag gtcaggtctc cctctgcttc ctgaaggtga   3240
aacatggggc aagacggttt cactcccact gcctttaaat tattcctgct aaagaaagtt   3300
aagttttaat aggtttggat acaattagaa tgaatggcca aatggctttt tctaaaatac   3360
aaataataac ttttttttttt ttttgagat ggagtctggc tctgtcacct gggctggagt   3420
gcagtggcgc tatctcagct cactgcaatc tctgcctcct gggttcaaga gattcttgtg   3480
cctcagcctc ccgagtagct gggattacag gaacgcgcca ccacgcctgg ctaattttttg   3540
tattttggt agagacaggg tttcaccatg ttggccaggt tgttctccaa ctcccgacct   3600
caagtgacct gcctgcctcg gcctcccaaa gtgctaggat tataggcgtg agccaccgag   3660
cctggcccaa ataataactt tctatgactt tatgtatttt cttctaaagt ttcaggcact   3720
tttccatctg ttttttcatt tttcttcaca atcgtctctg ttttgagaac agttctcttt   3780
catttgcctg ccttatacca gtatggtctc catgtgctct gcacagccat ttctttttgtg   3840
tcccttttta ttgctctaga aggttaaata caattaaaat gtgcaaaatt gatttgttga   3900
tttgtcttcc taataaaatta gctttttgttt ctgcatagga attgcctatg tttaattctc   3960
tatcatgtca cagaaatgaa agtaccacca attctagcaa tgtggtttta aaagcatttta   4020
tatgttaaat agaaactaaa tttatcatta gattagtcta gattaatctg tacctgtatt   4080
aaattaattg atctgcagct gttgcatcta atctcagctg tctgtagatt aatgataatt   4140
tggaggccta gcttccaaac attattccta aaataaacat ttatctctct aagccaaata   4200
tattaaaaat gcagtttaag aaacaatcag agaaatccag actggaggtc attcaataag   4260
aaaaccagca ctttgggagg ccaaggcggg cggatcacct gaggtcggga gttcgagacc   4320
```

```
agcctgacca acatggagaa accctgtgtc tgctaaaaat atataattag ctgggcatgg   4380
tggcacacac ctgtagtcac agctacttgg gaggctgagg caggagaatc acttgaacgc   4440
tggaggcaga ggttgcagta gctgagatcg cgccattgca ctccagcctg ggcaacaaga   4500
gcaaaactct gtctcaaaaa aaaataaaat aattcaatgt tatgggaaaa atgaatgata   4560
gggaattctt ctaaattaaa catgactagg gacataacaa ctaaatgtaa agtgtgattg   4620
ttgattagat tctgatccaa acacaaatat ctataactaa cattctggag acatttgaga   4680
aaatgttaat atagactggg tattggatgg tattagggaa tcagtgttaa tttgggtagg   4740
catgataatg tattgcggtt atagaagcaa atgtccttat ttttaggaga agctgactgt   4800
agtatcctga cgtgtaccac ttactttgaa atggttctac tggaaaaaaa aaagtctgta   4860
tgtctgtgtg tgtgtgcaca tccataagtg tatgtgtatg tatatttgaa acaaatatag   4920
caaactgcta gcagttgttg atccaagtgg tggatatgtg gatgtttgtt gtactcttct   4980
ctccgttata tttacaaata aaatgttgga aaataccacg taggtaagaa ctgagtgatt   5040
ccttcatgga gcaccaatct cccattgtgc tgtttcaatt aaaggtcaac cctaaggatc   5100
tggattctaa gtatgcatac atccaggtga ctcacgtcat cccccttcttt gacgaaaaag   5160
agttgcaaga aaggaaaaca gagtttgaga gatcccacaa catccgccgc ttcatgtttg   5220
agatgccatt tacgcagacc gggaagaggc agggcggggt ggaagagcag tgcaaacggc   5280
gcaccatcct gacaggtatg ggccccagaa gccgcatgga cacgagcccg gacacctcgc   5340
caaagagctg tccagaggga ttcagaagct tcaggactgg aagggtcttt cgagctcagt   5400
tagccacccc cacacccatt tcagtttcac atttatctag tgcttccttt tgaatacttg   5460
ggatgttttt ctgttgatct gttgacactt ccttcttcca caagaccaga agctcatatc   5520
caatctaagg tcacttaccc ttctgagaat ctgatgaaaa tggcgtgcct tatgtgccta   5580
gatgcttttg cacacagtct aaggtgactt atggactcca ggtccagcag ccacacccag   5640
tcctgggtct ccgcacaggg agggacccgt ctcacacacc tgtctcaggt tctagcatgg   5700
cctgctcagc ggtctcaggc tgtgagtaaa tgggatgtga gcttggatcg ccccacgctg   5760
ttgcccccgg gggctggcca gctgccactt gaatgcctcc tctgccagga agctcactgc   5820
attcagtggc tatccacgag ttcagcttag gcagttttca ctgatccctt tggcactgtt   5880
tagccagtga taacccactc tgggaaatgt gttttgcatc atttcccggt ccctggcaag   5940
tgtctagtca tcctggggtg attttttacct tctgtgggag agcttgaccc atccctgcct   6000
cattagggtc agcgacatca ctggggtaac ctaacataaa atgctttctt gaccaagaaa   6060
tatcagtggg agggccgttg agaatgccag gtgtgccagc tttcaccaca cgtcttccaa   6120
agagtggccc tagttaagtc agaccaggaa agggcctgct ccccggaagt tggggttgtt   6180
gagtttctgt ctgggtaata atacacacta tcataataag cggaaggagc gctgtggaga   6240
tgctgcaccc aggtgcttat cagctctcac cggcgaagcg tatgctttaa aaagagagac   6300
tggatggcgt ggggtttata tctcagtaaa gctgttacaa aaaaaaaaaa aaaatacag   6360
gttttatga attagcccag gacagcgtat tgcagggagc ttttcacact ccctatgagg   6420
gaaaagagat acaagttaaa acaaaactgt gttcttaaag tgtccctaat cctgcttgta   6480
aaataagaag acagcatata taaagcacaa ataatattgt cctcacaaac atcaccccac   6540
cccaaataat ttaattattt ttttaatgca cacatcagta gcaaattctc attaagccaa   6600
ataactgcgc ttccagatgg aatcacttta tgggaatcac cagcttacag tgtttatggt   6660
tcagctgtga taactttcct tctgaccctt taagtcagtg gttacccaag gttggtccag   6720
gaccagcagc atcagcaccc ccagggaact tgttagagat ggaagttcca ggtccccacc   6780
tccgaaactg ctggatcaga aactctgggg gcggggccca gctctttgtg ttcaacaggc   6840
cctcccggtt atcctggtgc atgctcagat tagagaactg ctgcctttaa taaacctagt   6900
tcactgctga gtcagggtca ggattttta gtatggttat tgttaaggca gtgtacggat   6960
tcataaacat tcattaccat aggctgtttt cccagggcac atttctccag ggttacaggt   7020
catcattttg ttagagacta ctttagatta gataaagcac atgagcaatg ctctgtatct   7080
gcgggaacaa ggggacagag agtgcgcttc agagagaggt ggggcagaca cctgtgttgt   7140
tggcttgggg attgccgtcc acagctgtgg gttgagacag cctaagcaat ggcgaggctg   7200
tcctgggggt cctgtaggcc tgggtcacag cctcattgtg tgaccttggg caggtcactc   7260
ttcctctcta tgccttagtt tcctcatctg taaaatgcaa gttaggacac ttatctcatt   7320
atattgtcat aactttgtaa atagtaagaa gcaagggaaa gagcgttctt catttttttgc   7380
tagatttcat ccgctgttga gctagataca cacaccaggg cgttctgaag gctagacctg   7440
agggttttcc ctcaagttat caacccctca ggttcttctt ccattgcatt gctttgtacc   7500
taacctttgg ccttccaaag gtcaaaggga gcccaggcct tccctgccct ctacaccagg   7560
aaaaggctca cctttctggg tagttcccag tcagctgact gtaactgtgc aatcatttga   7620
aaaacctcat gatcaccctc cagcctcctt cagtggaaat ttctgagcct gtcccaaaga   7680
aggggggcga ggagaagcct cctccacttc tttcatggaa cttttgccaa ggagtttctt   7740
cccagtcact attccagagt cttccaaacc tggattagct tccggccctc cactttctat   7800
tcaagacaca cagaccagca gtcaccatac ttatcactgg gccttccccg tcctcctttc   7860
taaagggctg gctcagtcgg tcacctaatt gtccaccttc cagagccagt ttggactctc   7920
atgcagccat ttgggcagta atgcattcat tcattcaaca aaatgtattg cacactgacc   7980
```

6514

```
atgttcccat tggcaggcta atgaaacaga catctgtggg cctgtgcagc tggcattcta   8040
gccagaggag acagatgata aacagtaccc agatgagtaa atataaccgt ggtagaacgt   8100
gatctgtgtt ccagacaaag caaaaggaga ctgggaacct ggagttgacc tccttcctca   8160
gaaacaggaa ggcagcccca ctcttcccct gaagcacagc cccctgtcca aatacaagca   8220
ggcatctgcc agcactgcct ccctgactag ggagcagcga ggccgagtcc tcaccatcct   8280
accagggagc tttgtggatc cccagtgcta ccacttaaaa tctgtgaaac caagtcggga   8340
acccttcacc tttcactgat aaaacattgt gaaaaggcaa caggcctata agtacgtgac   8400
atatgaggtt gcctcagggt ggacatgttt tccgcttttg tccagatgtt gggtggccca   8460
tcggaactct gtgtttcaca ggggctgggc ctgtttccca tcctgtgatg agtccttccc   8520
aattgaactc ttccctagcc agttgctaac tagagaccag gaccactccc atctgacgtt   8580
tgcttgttca aaaaaataa taagctttta agtacatatc tacctgccta ttagtaaata   8640
tatgtcaagt gagaatatta tagatatttc tatattatat agagcaataa gaaatgtgaa   8700
atagtaaatg agaacctgct gttttttctgt tcatttttaa attaactcct ttgtgttgat   8760
gtttaggtat ctcattatga taaaggaaaa caatattaat cagatttttt tggttaaaaa   8820
atatataaga aaaagtaaat attttttattt ttatttctta ttcattgctg taagtttcaa   8880
aatacctttta ttagcactac agctccaaaa gtttgtgaat ttctggttca tgaaatcctt   8940
tgcttaggag tatattcttt gtgttttttt ggtttgggtt ttaggggaat ggttttttgtt   9000
ttctttttttg agacagggtc tcactctgta gcccaggctg gagtgcagtg gcacaatcac   9060
agctcactgc agctttgacc tcctgggctc aagcctcctg tgtcagcctc cccagtagct   9120
gggactacag gcatatacca ccacactcag ctaatttttt gtattttta caaaattaca   9180
aaaattaggt ttttgccatg ttgcccaggc tggtcttaaa ctcctgggct caagtgatct   9240
accagccttg gcctcccaaa gtgctaagat tacaggtgtg agcactgtac ccaccctagg   9300
aatatattct tacttattat tttctactga tttctcagct ttgtgcaagc ttagcatgtg   9360
attcaaagtt attctatgga caaaaatgaa ttttctcaag gatatttta tggaactatt   9420
ttctggactt aatctgttat gtagtatctc aaaattgttt agtctttttt atgttgtcaa   9480
agtcatctta tatccactaa ctcattcaaa cctcagagct tccaaggaag gtttgagtgg   9540
ggaatgataa cctcattttat ttaaagacac gcttgtcaca ttaaaaggat aacaaggacc   9600
caactctctt gactttacga gacacacgat tgtaaaggaa gacaatattc tagctccatc   9660
aagtactagt atgtgtcttt ggcaagcttt gggttcctta ttttaaaaat gtaagtaata   9720
atgacatgta taataatcac ttctaataat aatcagctca ataacactaa agctcgtgca   9780
agccatgcag taattctggg gcttaccctc tgcagccata cactgcttcc cttatgtgaa   9840
gaagcgcatc cctgtcatgt accagcacca cactgacctg aaccccatcg aggtggccat   9900
tgacgagatg agtaagaagg tggcggagct ccggcagctg tgctcctcgg ccgaggtgga   9960
catgatcaaa ctgcagctca aactccaggg cagcgtgagt gttcaggtga gccaggcaca   10020
gcaggccgga gggcagcagg ggacgtcctt gccctgggt gacttgagag tcgtttccac   10080
taacaaggtc tacttgagag cctcggttta ccaagtgatc cctgctccct tcccccaacg   10140
tctgtgacat ttctcctgat atcagagggg gaggaaacct catgatccct gccccccgcc   10200
ccatgaggac tgactgtggg gacaagagcc agatctcata cactaccctg atttgtcagt   10260
atttggggaa ttctgggtgc ctgattagaa gcatcaagac tcttctaaat acaaagaagt   10320
gtggagagca gtagattttc ctataaaact gttgtttgct gttttctatg aaaattgtat   10380
ccaaaaaagt accttaagtt ttaccctctt aatggtatct tttgattaat gaattcatta   10440
ttttaatata gcccaatcaa tcaattttttc tttattggta gcattttat gttctctttta   10500
agaaatctgt gtctactcca aaatttcaca gatgttctcc taggttttcc tcctttgctc   10560
agcatccaca tccaggtctg cagtccatct ggaattgatt tttgtatatg ttatagtgta   10620
agggtcagga tatatttttt ccatatgacc ttccaagtga tatacacaat ttattgaaaa   10680
gatcatcttt gatctagata ctaacatata tgttcagttt gtgaaaattc atcaagctgt   10740
atacacttgt gatatatgcg ctttcccgtt tgtatattat actttagtaa gaggttttta   10800
aaaagttatc ttacttacat ggtttcctag ttaattggta agtgttaaat cactccctcc   10860
agtaacaagt atgactctta ttttctggta tttttaagtg tatatagttc aagcacatgt   10920
ttgttcatat gtatatgtac atgtgtgtat atatgtattt gtatatccta ttgtttttatc   10980
tttcaagaag ggtatgttta tgaaagttac atgtggatta taatacatag gttttggttt   11040
ttttggttca ttttctgaaa ttatattttg tcaacttccc atcagatcca cgctaaagaa   11100
ccgtgagttg ttgcccaaca tttttgtgtc attcaccaca aaagcattta cagatgtttt   11160
taatctcttt ccttatagtc tcaaagacat atgtgccaaa ataagttagc aagtgaacat   11220
aagtattcca gcaacatgag tgattatgta acaggtccag aggccacaat tttctgtagc   11280
taaaaacaaa accactcaat caacatgatc ttggaacatc cagcccctat ggaaaggccg   11340
ctggaggggt gtggcaccag tccagggtag ggctggacca ttgagctttg taaaaggcaa   11400
aatatgccct gctaatttga tggtaaactt agcattttat aaaattccca gtcatcttaa   11460
aaagcaagaa attccatgtt gaaatgagaa gattaagttt atactcatac ctaccaaagt   11520
aacaacaaag ttgcagccag aggaaattaa ctttatcatt ttatttgcgt atttctgtaa   11580
ttgtttcatc aagcagctca ctggcgctgc agctttactg ggcagagccg tctgcggagc   11640
```

6515

```
ttcttgtcat tgcactccaa gatcttgcta ttagacctta tggagtctca tcagccttcc   11700
tctttctatc ttcttcaaat acagaccgtc ttgtatcatt ttagatgatc agtcattttg   11760
gtcgtcttca ggtgatgaat acagttcccc ccacgcacca gcctggtgct gagttccacc   11820
ctcaacgcac cttgggctgt tcacccattg cccccggctc agaggtcccc ctctgaccac   11880
tgtggctgga acctggaacc ctcctgtgtc tccacgtctg gtgtgagttc ctgtggctca   11940
gttttcctgc cattgctaga caagtcctgc ctaccatggg tcagaaccac acacggggag   12000
ctcccctaat tccttgctaa gctcaccaga ccttccggga aatatcaagc agtgaccaca   12060
tagtcacgtt cttccccagg ctgtctcaga cgcctggaac attcttcttc ccatcccagt   12120
gtgtccagcc ttctttctca ccacgttctt acctttcctt acttatccag aatcagcaga   12180
cccttcttag ctgcttgcaa gggtggtgca gggttctggt tcactcaccg tgctgtctgc   12240
tcctaacatc tagctctcca gcacaccgca aacgctcact tcatcccagg atagcaaatc   12300
agtttgccca tggctgtcta tacaattcaa tgaaatgaac agttgggttt caaaaactgg   12360
aatagttact gcattttttca attttttcact gaattcacca gattggcctg ttagttcagt   12420
gtagtgcagc acaaatccca gtgactaaac accttggaag taagaatcct tgacctggat   12480
ttggaagacc tgggctgtga tctctggcgt tttgcttatt ggctcttcaa acttcaacag   12540
gcccctaagt tttccaagca ttggtttctt cttacataaa gtaaaccatc atcacaagtg   12600
ccctgaagat ggctgagatc atggaatcaa gtggtgtgca acagagtgaa ctttgtggtt   12660
tcttttttggg cttaagttcc tggaaggcag ggattgtgag tagctcacgc gaacgggctt   12720
tttagtgcct gcaaactgaa actgagcaga tggtcatggt gattttcttc ctagtggaac   12780
tgaaaatctt tgctctttgt ctaggtcaat gctggcccac tagcatatgc gcgagctttc   12840
ttagatgata caaacacaaa gcgatatcct gacaataaag tgaagctgct taaggaagtt   12900
ttcaggtaaa gcacactgaa agcatctttt tctcttcgag tattgatcat ttctgtactc   12960
attcgggaag gagatgctgc tggttggact catgccttat cctctgcgtg cctttgtttc   13020
tcccgcctgt accattccag gcaatttgtg gaagcttgcg gtcaagcctt agcggtaaac   13080
gaacgtctga ttaaagaaga ccagctcgag tatcaggaag aaatgaaagc caactacagg   13140
gaaatggcga aggagctttc tgaaatcatg catgagcagg tgagggccgc actggctcca   13200
acaacttgga gttcttggtt aggggtttca agtacaccct atcatgactt aggccgcctg   13260
atatccttcc agaactgtga catctgaagg agaatgtagc ataccacact cctgccatgc   13320
tctagcccca ggtcatttgg gaacagctaa cagattgccc atatgctgtt atctacggca   13380
agcagggggag agcgggcccg cctcctcgtg gctctaagag gtggccatgt ttcctaagct   13440
ttctctctcc ccacccccgt ctagccaaaa agaaaagaaa ggaaaaactc acacgaaaat   13500
atccatactg ttctgacaac tttattcctt taatcctttg aaaaaagcag gacttgccaa   13560
cctggtttaa ggaattatct gttgcattca atgttttttgc tgtttaaaaa tacagactga   13620
ttccatttttt gatgatgtac agtgggcctt ggcgccccag tggattcttc ctttaagttc   13680
cttgtcacta tgggcatctt ccctgattat tttgctgtta tctctttcct gtgggtttct   13740
tcagtaggat tctatgtgtg ggctcagttg tcacagagga gacagtgtcc catacccagg   13800
gaatgcctag agcagcatcc acattgtttt ttttgtgagg ggtctgtctc agtcactgtc   13860
ctttctttat aattgacatt agcaccttga taacacagaa ctgctctgtc tggcccctcc   13920
attatcgtcc ttcagtctgg cacagtggaa gccagggccg tttgtggagt gatcctatcc   13980
cctgacagtt tagttagtac attttcattg caggaaacga acgtcagtgt gtgagcttta   14040
actcacttgc tttttttttctc ctccatgcta acacgttcag ctgggatggt aatgtcattt   14100
ttaaacatta tttttctgat aatctgactt agaaaaagct attactttttt tgagtttgag   14160
caactacaga cattggcata atgacagtac atgggcagag gaaagcaccc tcttctggac   14220
attttaaaaa gtagaggcca gacatggtgg ctcactcctg taatcccagc actttgggag   14280
gccaagatgg gtggatcatc tgaggtcagg agttcgagac cagcctggcc aacatggtga   14340
aacccatct ctactaaaaa atacaaaaat tagctgggtg tagtggcaca taccctagtc   14400
tcagctactc gggaggctga ggcaggagaa ttgctggaac ccaggaggtg gaggctgcag   14460
tgagccaaga tcatgccact accctctagc ctgggccaca gagcgagact ccatctcaaa   14520
aaaaaaaaaa gtagaaaaaa attgaaacga ttagagaaat gaatgtctga ataattaagc   14580
agaacaggag ggactcatgg gaaccgattt tcagagaaaa cttgagatct tttctgtgga   14640
gcctccagat tcctatagaa tggagagttt ggtcagtggg tgccgacatt gggcactaga   14700
gaagatgaaa gtagtaagag atcataggct gaaactgtta aactcccaaa gtacagggat   14760
atttaatgca cttgctgtca gctgcacctt gaacttccca ttatgccaac agctgtgaag   14820
actgagcccc cgtgaacccc tgaagggccg tggcgggggt agacttgctt tcgatgtttc   14880
caggggagcc tctgctggag gtgaagacct acactcagat ccttccaggc accactgggc   14940
atggaaagat acttgttcag ggtcagagga gtagccaccc tctcccaaga caaaatccgt   15000
aagaccctga gaaaaggagg caggagagaa acacaaatgc ttcaaattca tttttaaagg   15060
cttttttcaag gtcaaggcta ggttgtgtcc cagtcaagca catgtaagta gacctcacgt   15120
tgccttaagt agacctcacg ttgccttatg atctggtgag cgtagaaggc tctccattca   15180
ctagctttgt aaaagaaaca aaatgtgctg ttcttgactt tctccttata atcctcacct   15240
gaaaacagtc atttatgaga taagctgaac atctccctct gtaaaccagc agccaggctt   15300
```

6516

```
tccggctgca catcactcac gtgatggagt gagtgtagac ttgtgtgtgt gatgtggggt    15360
gcaacacatt gagaaatatc tgcttgcatc cttatactca gtaacattgt gttgcacgtg    15420
gcaacattgc cttaaactct gtaacatttt gttacacttg gtaacattgt gtcacacatg    15480
gcaacatggc attgcatatg gtaaccttgt gttgccctca gtaacgttgt gtttctgtcc    15540
tcaagatctg cccccctggag gagaagacga gcgtcttacc gaattcccctt cacatcttca    15600
acgccatcag tgggactcca acaagcacaa tggttcacgg gatgaccagc tcgtcttcgg    15660
tcgtgtgatt acatctcatg gcccgtgtgt ggggacttgc tttgtcattt gcaaactcag    15720
gatgctttcc aaagccaatc actggggaga ccgagcacag ggaggaccaa ggggaagggg    15780
agagaaagga aataaagaac aacgttatTt cttaacagac tttctatagg agttgtaaga    15840
aggtgcacat attttTttaa atctcactgg caatattcaa agttttcatt gtgtcttaac    15900
aaaggtgtgg tagacactct tgagctggac ttagatttTa ttcttccttg cagagtagtg    15960
ttagaataga tggcctacag aaaaaaaagg ttctgggatc tacatggcag ggagggctgc    16020
actgacattg atgcctgggg gacctttTgc ctcgaggctg agctggaaaa tcttgaaaat    16080
attttTtttt tcctgtggca cattcaggtt gaatacaaga actattTttg tgactagttt    16140
ttgatgacct aagggaactg accattgtaa ttttTgtacc agtgaaccag gagatttagt    16200
gcttttatat tcatttcctt gcatttaaga aaatatgaaa gcttaaggaa ttatgtgagc    16260
ttaaaactag tcaagcagtt tagaaccaaa ggcctatatt aataaccgca actatgctga    16320
aaagtacaaa gtagtacagt atattgttat gtacatatca ttgttaatac agtcctggca    16380
ttctgtacat atatgtatta catttctaca ttttTaatac tcacatgggc ttatgcatta    16440
agtttaattg tgataaattt gtgctgttcc agtatatgca atacacttta atgttTtatt    16500
cttgtacata aaaatgtgca atatggagat gtatacagtc tttactatat taggtttata    16560
aacagttTta agaatttcat cctttTgcca aaatggtgga gtatgtaatt ggtaaatcat    16620
aaatcctgtg gtgaatggtg gtgtacttta aagctgtcac catgttatat tttctttTaa    16680
gactttaatt tagtaatttT atatttggga aaataaaggt ttttaattTt atttaactgg    16740
aatcactgcc ctgctgtaat taaacattct gtaccacatc tgtattaaaa agacattgct    16800
gaccatt                                                                16807


<210> 8826
<211> 16793
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (13408)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (13809)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (14012)
<223> n equals a,t,g, or c

<400> 8826
aggatgtgct gatggagctc cttgagcagt gcgcagatgg actctggaaa gccgagcgct      60
acgagctcat cgccgacatc tacaaactta tcatccccat ttatgagaag cggagggatt     120
ttgaggtatg agagtgcctt tttgttttTt tcctatttga gagcatgacg ctgtgacata     180
tacccagacc tgcatatatg tgagagagga agcaggccat gggccagaga tgagtggggg     240
tctctgaccc tccacgttac gctgaaggtg gtggccagtc atcatctcca aatagtcatc     300
gggtatcacc cagacctggg ccctacctct gtggagaccc ccacatctca aactacagag     360
taaccggcac tccactttcg aaaggctgcc atgaacagag ttttgtgatc accaggtgtc     420
cctttTctga gaactcttcc ttactccacc tgcgtgaaaa aatggtgtcc cttccgtcca     480
tcctgggctt gggaggtcat ccagtttctc taggcatatc aaacagagca ggaaaagcaa     540
aggccaagaa tcacgttggg gaaccatctc tgacatcgca tcttaacttg aaaacagagt     600
ttgcttactc taatgtggaa atgtgatggg tcctcacgtg tgggctggcc tttgggtagg     660
aaatgttacc attcattaat gatcactaca agttgtgcag ccaaaatgtg tgtgtgtgta     720
```

6517

```
ttttttattca agttcaagga ctttttcacct ccattatcac atttgttatt ttaaaatcga    780
ttctcctctt tgcacatggg aagaaatggg ctttgttctg ctttccagag gctggcccat    840
ctgtatgaca cgctgcaccg ggcctacagc aaagtgaccg aggtcatgca ctcgggccgc    900
aggcttctgg ggacctactt ccgggtagcc ttcttcgggc aggtgagcct cctgtccatt    960
ctgcagactg tcctaagtcc tttaaaaaaa aacaaaaaca aaaacaaaaa aaaaactata   1020
ataaagttat atcttataaa ttctctgttt tctgtaattg ctaatttgat gaatttgtca   1080
tatttagtat gattcttatc ttcctcagta gtaaactttc tgctttttttt ctttcttcct   1140
gtcttttctt tattactttc ttaaggcagc ggtaagttct tcctccttaa gacattctta   1200
gcaacatctt tggtacttca gtgtggtttg caagtttgct tttcaagtct gtatgtttat   1260
ctgtctagtt attacaaact ccaaaaaaat taacattta ttccatttac agaaataaat   1320
cacctgtttt cttatatatc tatattgcat gttttaaacc aaaattaaga .ctttctggtg   1380
tcctttgtgc ctgtgcatct ttatcctttg tagtataata tctccacaag tatatttaca   1440
gttttttcaga aaccctatag gaaagggttt atctaaattt aacttaaatt ttaaccttcg   1500
agtcccttaa cattattaaa tggtataaat tataatacat atatttaggg cgtgtggttt   1560
tctatgagca ttatataacc ttcaatttat tctgttattg tctttatataa ctttatagca   1620
ataccagttt acagacagtg aaacagatgt ggaggtaatt acagtaaatg cctaaaaagc   1680
aagtaatata gtgaaattac tgcgtctaaa ctcctagttt gatgtggatg ttttttgttt   1740
catgctagct tgcatttttt tttactgttt tgtgcaccat tttctctctc ttaatttacg   1800
tgagaaactt taaaaaattt tcttttaaac attaacccca gttggacttt ttaattttca   1860
acctttttca cttcccatgc aattctaagc cttgtagtca aacatgattg gtgctaaaac   1920
agatgatgac tggtgatatg aaaatatttt ctgatattga gctacaggtc tttaatattt   1980
ttttctcatc ggtaaagcaa aatacaattt atacaagctt tacctaactt ttactaaact   2040
tactccagac ccccaaacgc ttcagttcat gccataaaat cctgtgtgca tgggagccat   2100
caggagaagg gaggcatgtc cacttctgag cctgcctgtc gtgggctgct catcattttc   2160
tagtgagttc tgcttcttgg gaaagtgaaa caggcttgac tcccattaga cttccctggg   2220
acagcttagt cttgtatcca aaatctttca tttcactcaa cacttaatga ctgcattctt   2280
gaataagttt gcaatgttgt gttttttcctt tacctttgca cctagacttc atgttattag   2340
cattttcttt ctcattcaga aagcccattt cagctggatt tttagaccca ttccttttttt   2400
tcccccttgt aataaaagaa cgcttcctag gtggtaagcc ctgggcttac gttcagggat   2460
agctctaatt gtgctttatg tcacagggat tctttgaaga tgaagatgga aaggagtata   2520
tttacaagga acccaaactc acaccgctgt cggaaatttc tcagagactc cttaaactgt   2580·
actcggataa atttggttct gaaaatgtca aaatgataca ggattctggc aaggtatgac   2640
catgtttgga taagtttcat agcaatgtaa tgttgtgatt gattacatat tatatatttt   2700
taaatgtata tagaaaaaaa cacaagaaaa atattaagga ttgttggccg tgagtggcag   2760
gtgtattttc ttcctgatac ctttagtgct ttccattaca tgcttgacat taaaaaatct   2820
ttatcgccta attttttgaaa catctaattt tacaaaataa ttaacgtctg acaggatatg   2880
tcattttttag tccagctatt tagaaactct gacagaatga ggcctgtggc ttcgctactc   2940
actgcacctc ttcctgcatg tagcacatga cttgccactc tgtcactgac ggctggatgt   3000
aaggacaggt gaacagatgg gcggatgggt gaatggacac atggacaggc caaggaatga   3060
actcaccagc agcgtgactg tgggaatggc gatcattttc tgcttagaga gctgtcctct   3120
ggcattctgt tctcatgaag accctttttgg aacctgcacc tttgtcctgt acctttgtgt   3180
gtcccaccct cctcaggaca tctccaggag gtcaggtctc cctctgcttc ctgaaggtga   3240
aacatggggc aagacggttt cgctcccact gcctttaaat tattcctgct aaagaaagtt   3300
aagtttttaat aggtttggat acaattagaa tgaatggcca aatggctttt tctaaaatac   3360
aaataataac tttttttttt tttttgagat ggagtctggc tctgtcacct gggctggagt   3420
gcagtggcgc tatctcagct cactgcaatc tctgcctcct gggttcaaga gattcttgtg   3480
cctcagcctc ccgagtagct gggattacag gaacgcgcca ccacgcctgg ctaattttttg   3540
tatttttggt agagacaggg tttcaccatg ttggccaggt tgttctccaa ctcccgacct   3600
caagtgacct gcctgcctcg gcctcccaaa gtgctaggat tataggcgtg agccaccgag   3660
cctggcccaa ataataactt tctatgactt tatgtatttt cttctaaagt ttcaggcact   3720
tttccatctg tttttttcatt tttcttcaca atcgtctctg ttttgagaac agttctcttt   3780
catttgcctg ccttatacca gtatgggctc catgtgctct gcacagccat ttctttttgtg   3840
tccctttttta ttgctctaga aggttaaata caattaaaat gtgcaaaatt gatttgttga   3900
tttgtcttcc taataaaatta gcttttgttt ctgcatagga attgcctatg tttaattctc   3960
tatcatgtca cagaaatgaa agtaccacca attctagcaa tgtggtttta aaagcattta   4020
tatgttaaat agaaactaaa tttatcatta gattagtcta gattaatctg tacctgtatt   4080
aaattaattg atctgcagct gttgcatcta atctcagctg tctgtagatt aatgataatt   4140
tggaggccta gcttccaaac attattccta aaataaacat ttatctctct aagccaaata   4200
tattaaaaat gcagtttaag aaacaatcag agaaatccag actggaggtc attcaataag   4260
aaaaccagca ctttgggagg ccaaggcggg cggatcacct gaggtcggga gttcgagacc   4320
agcctgacca acatggagaa accctgtgtc tgctaaaaat atataattag ctgggcatgg   4380
```

```
tggcacacac ctgtagtcac agctacttgg gaggctgagg caggagaatc acttgaacgc   4440
tggaggcaga ggttgcagta gctgagatcg cgccattgca ctccagcctg ggcaacaaga   4500
gcaaaactct gtctcaaaaa aaaataaaat aattcaatgt tatgggaaaa atgaatgata   4560
gggaattctt ctaaattaaa catgactagg gacataacaa ctaaatgtaa agtgtgattg   4620
ttgattagat tctgatccaa acacaaatat ctataactaa cattctggag acatttgaga   4680
aaatgttaat atagactggg tattggatgg tattagggaa tcagtgttaa tttgggtagg   4740
catgataatg tattgcggtt atagaagcaa atgtccttat ttttaggaga agctgactgt   4800
agtatcctga cgtgtaccac ttactttgaa atggttctac tggaaaaaaa aaagtctgta   4860
tgtctgtgtg tgtgtgcaca tccataagtg tatgtgtatg tatatttgaa acaaatatag   4920
caaactgcta gcagttgttg atccaagtgg tggatatgtg gatgtttgtt gtactcttct   4980
ctccgttata tttacaaata aaatgttgga aaataccacg taggtaagaa ctgagtgatt   5040
ccttcatgga gcaccaatct cccattgtgc tgtttcaatt aaaggtcaac cctaaggatc   5100
tggattctaa gtatgcatac atccaggtga ctcacgtcat cccttcttt gacgaaaaag   5160
agttgcaaga aaggaaaaca gagtttgaga gatcccacaa catccgccgc ttcatgtttg   5220
agatgccatt tacgcagacc gggaagaggc agggcggggt ggaagagcag tgcaaacggc   5280
gcaccatcct gacaggtatg ggccccagaa gccgcatgga cacgagcccg gacacctcgc   5340
caaagagctg tccagaggga ttcagaagct tcaggactgg aagggtcttt cgagctcagt   5400
tagccacccc cacacccatt tcagtttcac atttatctag tgcttccttt tgaatacttg   5460
ggatgttttt ctgttgatct gttggcactt ccttcttcca caagaccaga agctcatatc   5520
caatctaagg tcacttaccc ttctgagaat ctgatgaaaa tggcgtgcct tatgtgccta   5580
gatgcttttg cacacagtct aaggtgactt atggactcca ggtccagcag ccacacccag   5640
tcctgggtct ccgcacaggg agggacccgt ctcacacacc tgtctcaggt tctagcatgg   5700
cctgctcagc ggtctcaggc tgtgagtaaa tgggatgtga gcttggatcg ccccacgctg   5760
ttgcccccgg gggctggcca gctgccactt gaatgcctcc tctgccagga agctcactgc   5820
attcagtggc tatccacgag ttcagcttag gcagttttca ctgatccctt tggcactgtt   5880
tagccagtga taacccactc tgggaaatgt gttttgcatc atttcccggt ccctggcaag   5940
tgtctagtca tcctgggggtg attttttacct tctgtgggag agcttgaccc atccctgcct   6000
cattagggtc agcgacatca ctggggtaac ctaacataaa atgctttctt gaccaagaaa   6060
tatcagtggg agggccgttg agaatgccag gtgtgccagc tttcaccaca cgtcttccaa   6120
agagtggccc tagttaagtc agaccaggaa agggcctgct ccccggaagt tgggggttgtt   6180
gagtttctgt ctgggtaata atacacacta tcataataag cggaaggagc gctgtggaga   6240
tgctgcaccc aggtgcttat cagctctcac cggcgaagcg tatgctttaa aaagagagac   6300
tggatggcgt ggggtttata tctcagtaaa gctgttacaa aaaaaaaaa aaatacaggt   6360
ttttatgaat tagcccagga cagcgtattg cagggagctt ttcacactcc ctatgaggga   6420
aaagagatac aagttaaaac aaaactgtgt tcttaaagtg tccctaatcc tgcttgtaaa   6480
ataagaagac agcatatata aagcacaaat aatattgtcc tcacaaacat caccccaccc   6540
caaataattt aattatttt ttaatgcaca catcagtagc aaattctcat taagccaaat   6600
aactgcgctt ccagatggaa tcactttatg ggaatcacca gcttacagtg tttatggttc   6660
agctgtgata actttccttc tgacccttta agtcagtggt tacccaaggt tggtccagga   6720
ccagcagcat cagcacccc agggaacttg ttagagatgg aagttccagg tccccacctc   6780
cgaaactgct ggatcagaaa ctctgggggc ggggcccagc tctttgtgtt caacaggccc   6840
tcccggttat cctggtgcat gctcagatta gagaactgct gcctttaata aacctagttc   6900
actgctgagt cagggtcagg attttttagt atggttattg ttaaggcagt gtacggattc   6960
ataaacattc attaccatag gctgtttccc cagggcacat ttctccaggg ttacaggtca   7020
tcattttgtt agagactact ttagattaga taaagcacat gagcaatgct ctgtatctgc   7080
gggaacaagg ggacagagag tgcgcttcag agagaggtgg ggcagacacc tgtgttgttg   7140
gcttggggat tgccgtccac agctgtgggt tgagacagcc taagcaatgg cgaggctgtc   7200
ctgggggtcc tgtaggcctg ggtcacagcc tcactgtgtg accttgggca ggtcactctt   7260
cctctctatg ccttagtttc ctcatctgta aaatgcaagt taggacactt atctcattat   7320
attgtcataa ctttgtaaat agtaagaagc aagggaaaga gcgttcttca ttttttgcta   7380
gatttcatcc gctgttgagc tagatacaca caccagggcg ttctgaaggc tagacctgag   7440
ggtttttccct caagttatca acccctcagg ttcttcttcc attgcattgc tttgtaccta   7500
acctttggcc ttccaaaggt caaagggagc ccaggccttc cctgccctct acaccaggaa   7560
aaggctcacc tttctgggta gttcccagtc agctgactgt aactgtgcaa tcatttgaaa   7620
aacctcatga tcaccctcca gcctccttca gtggaaattt ctgagcctgt cccaaagaag   7680
gggggcgagg agaagcctcc tccacttctt tcatggaact tttgccaagg agtttcttcc   7740
cagtcactat tccagagtct tccaaacctg gattagcttc cggccctcca ctttctattc   7800
aagacacaca gaccagcagt caccatactt atcactgggc cttccccgtc ctcctttcta   7860
aagggctggc tcagtcggtc acctaattgt ccaccttcca gagccagttt ggactctcat   7920
gcagccattt gggcagtaat gcattcattc attcaacaaa atgtattgca cactgaccat   7980
gttcccattg gcaggctaat gaaacagaca tctgtgggcc tgtgcagctg gcattctagc   8040
```

6519

```
cagaggagac agatgataaa cagtacccag atgagtaaat ataaccgtgg tagaacgtga  8100
tctgtgttcc agacaaagca aaaggagact gggaacctgg agttgacctc cttcctcaga  8160
aacaggaagg cagccccact cttcccctga agcacagccc cctgtccaaa tacaagcagg  8220
catctgccag cactgcctcc ctgactaggg agcagcgagg ccgagtcctc accatcctac  8280
cagggagctt tgtggatccc cagtgctacc acttaaaatc tgtgaaacca agtcgggaac  8340
ccttcacctt tcactgataa aacattgtga aaaggcaaca ggcctataag tacgtgacat  8400
atgaggttgc ctcagggtgg acatgttttc cgcttttgtc cagatgttgg gtggcccatc  8460
ggaactctgt gtttcacagg ggctgggcct gtttcccatc ctgtgatgag tccttcccaa  8520
ttgaactctt ccctagccag ttgctaacta gagaccagga ccactcccat ctgacgtttg  8580
cttgttcaaa aaaaataata agcttttaag tacatatcta cctgcctatt agtaaatata  8640
tgtcaagtga gaatattata gatatttcta tattatatag agcaataaga aatgtgaaat  8700
agtaaatgag aacctgctgt ttttctgttc attttaaat taactccttt gtgttgatgt  8760
ttaggtatct cattatgata aaggaaaaca atattaatca gattttttg gttaaaaaat  8820
atataagaaa aagtaaatat ttttattttt atttcttatt cattgctgta agtttcaaaa  8880
tacctttatt agcactacag ctccaaaagt ttgtgaattt ctggttcatg aaatcctttg  8940
cttaggagta tattctttgt gtttttttgg tttgggtttt aggggaatgg ttttttgtttt  9000
ctttttttgag acagggtctc actctgtagc ccaggctgga gtgcagtggc acaatcacag  9060
ctcactgcag ctttgacctc ctgggctcaa gcctcccgtg tcagcctccc cagtagctgg  9120
gactacaggc atataccacc acactcagct aatttttttgt atttttttaca aaattacaaa  9180
aattaggttt ttgccatgtt gcccaggctg gtcttaaact cctgggctca agtgatctac  9240
cagccttggc ctcccaaagt gctaagatta caggtgtgag cactgtaccc accctaggaa  9300
tatattctta cttattattt tctactgatt tctcagcttt gtgcaagctt agcatgtgat  9360
tcaaagttat tctatggaca aaaatgaatt ttctcaagga tatttttatg gaactatttt  9420
ctggacttaa tctgttatgt agtatctcaa aattgtttag tctttttat gttgtcaaag  9480
tcatcttata tccactaact cattcaaacc tcagagcttc caaggaaggt ttgagtgggg  9540
aatgataacc tcatttattt aaagacacgc ttgtcacatt aaaaggataa caaggaccca  9600
actctcttga ctttacgaga cacacgattg taaaggaaga caatattcta gctccatcaa  9660
gtactagtat gtgtctttgg caagctttgg gttccttatt ttaaaaatgt aagtaataat  9720
gacatgtata ataatcactt ctaataataa tcagctcaat aacactaaag ctcgtgcaag  9780
ccatgcagta attctggggc ttaccctctg cagccataca ctgcttccct tatgtgaaga  9840
agcgcatccc tgtcatgtac cagcaccaca ctgacctgaa ccccatcgag gtggccattg  9900
acgagatgag taagaaggtg gcggagctcc ggcagctgtg ctcctcggcc gaggtggaca  9960
tgatcaaact gcagctcaaa ctccagggca gcgtgagtgt tcaggtgagc caggcacagc  10020
aggccggagg gcagcagggg acgtccttgc ccctgggtga cttgagagtc gtttccacta  10080
acaaggtcta cttgagagcc tcggtttacc aagtgatccc tgctcccttc ccccaacgtc  10140
tgtgacattt ctcctgatat cagaggggga ggaaacctca tgatccctgc cccccgcccc  10200
atgaggactg actgtgggga caagagccag atctcataga ctaccctgat ttgtcagtat  10260
ttggggaatt ctgggtgcct gattagaagc atcaagactc ttctaaatac aaagaagtgt  10320
ggagagcagt agattttcct ataaaactgt tgtttgctgt tttctatgaa aattgtatcc  10380
aaaaaagtac cttaagtttt accctcttaa tggtatcttt tgattaatga attcattatt  10440
ttaatatagc ccaatcaatc aattttttctt tattggtagc attttatgt tctctttaag  10500
aaatctgtgt ctactccaaa atttcacaga tgttctccta ggttttcctc ctttgctcag  10560
catccacatc caggtctgca gtccatctgg aattgatttt tgtatatgtt atagtgtaag  10620
ggtcaggata tattttttcc atatgacctt ccaagtgata tacacaattt attgaaaaga  10680
tcatctttga tctagatact aacatatatg ttcagtttgt gaaaattcat caagctgtat  10740
acacttgtga tatatgcgct ttcccgtttg tatattatac tttagtaaga ggttttaaa  10800
aagttatctt acttacatgg tttcctagtt aattggtaag tgttaaatca ctccctccag  10860
taacaagtat gactcttatt ttctggtatt tttaagtgta tatagttcaa gcacatgttt  10920
gttcatatgt atatgtacat gtgtgtatat atgtatttgt atatcctatt gttttatctt  10980
tcaagaaggg tatgtttatg aaagttacat gtggattata atacataggt tttggttttt  11040
ttggttcatt ttctgaaatt atattttgtc aacttcccat cagatccacg ctaaagaacc  11100
gtgagttgtt gcccaacatt tttgtgtcat tcaccacaaa agcatttaca gatgttttta  11160
atctctttcc ttatagtctc aaagacatat gtgccaaaat aagttagcaa gtgaacataa  11220
gtattccagc aacatgagtg attatgtaac aggtccagag gcccacaattt tctgtagcta  11280
aaaacaaaac cactcaatca acatgatctt ggaacatcca gcccctatgg aaaggccgct  11340
ggaggggtgt ggcaccagtc cagggtaggg ctggaccatt gagctttgta aaaggcaaaa  11400
tatgccctgc taatttgatg gtaaacttag cgttttataa aattcccagt catcttaaaa  11460
agcaagaaat tccatgttga aatgagaaga ttaagtttat actcatacct accaaagtaa  11520
caacaaagtt gcagccagag gaaattaact ttatcatttt atttgcgtat ttctgtaatt  11580
gtttcatcaa gcagctcact ggcgctgcag ctttactggg cagagccgtc tgcggagctt  11640
cttgtcattg cactccaaga tcttgctatt agaccttatg gagtctcatc agccttcctc  11700
```

6520

```
tttctatctt cttcaaatac agaccgtctt gtatcatttt agatgatcag tcattttgtg   11760
atgaatacag ttcccccac gcaccagcct ggtgctgagt tccaccctca acgcaccttg   11820
ggctgttcac ccattgcccc cggctcagag gtccccctct gaccactgtg gctggaacct   11880
ggaaccctcc tgtctctcca cgtctggtgt gagttcctgt ggctcagttt tcctgccatt   11940
gctagacaag tcctgcctac catgggtcag aaccacacac ggagagctcc cctaattcct   12000
tgctaagctc accagacctt ccgggaaata tcaagcagtg accacatagt cacgttcttc   12060
cccaggctgt ctcagacgcc tggaacattc ttcttcccat cccagtgtgt ccagccttct   12120
ttctcaccac gttcttacct ttccttactt atccagaatc agcagaccct tcttagctgc   12180
ttgcaagggt ggtgcagggt tctggttcac tcaccgtgct gtctgctcct aacatctagc   12240
tctccagcac actgcaaacg ctcacttcat cccaggatag caaatcagtt tgcccatggc   12300
tgtctataca attcaatgaa atgaacagtt gggtttaaa aactggaata gttactgcat   12360
ttttcaattt ttcactgaat tcaccagatt ggcctgttag ttcagtgtag tgcagcacaa   12420
atcccagtga ctaaacacct tggaagtaag aatccttgac ctggatttgg aagacctggg   12480
ctgtgatctc tggcgttttg cttattggct cttcaaactt caacaggccc ctaagttttc   12540
caagcattgg tttcttctta cataaagtaa accatcatca caagtgccct gaagatggct   12600
gagatcatgg aatcaagtgg tgtgcaacag agtgagcttt gtggtttctt tttgggctta   12660
agttcctgga aggcagggat tgtgagtagc tcacgcgaac gggctttta gtgcctgcaa   12720
actgaaactg agcagatggt catggtgatt ttcttcctag tggaactgaa aatctttgtt   12780
ctttgtctag gtcaatgctg gcccactagc atatgcgcga gctttcttag atgatacaaa   12840
cacaaagcga tatcctgaca ataaagtgaa gctgcttaag gaagtttca ggtaaagcac   12900
actgaaagca tctttttctc ttcgagtatt gatcatttct gtactcattc gggagggaga   12960
tgctgctggt tggactcatg ccttatcctc tgcgtgcctt tgtttctccc gcctgtacca   13020
ttccaggcaa tttgtggaag cttgcggtca agccttagcg gtaaacgaac gtctgattaa   13080
agaagaccag ctcgagtatc aggaagaaat gaaagccaac tacagggaaa tggcgaagga   13140
gctttctgaa atcatgcatg agcaggtgag ggccgcactg gctccaacaa cttggagttc   13200
ttggttaggg gtttcaagta caccctatca tgacttaggc cgcctgatat ccttccagaa   13260
ctgtgacatc tgaaggagaa tgtagcatac cacactcctg ccatgctcta gccccaggtc   13320
atttgggaac agctaacaga ttgcccatat gctgttatct acggcaagca ggggagagcg   13380
ggcccgcctc ctcgtggctc taagaggngg ccatgtttcc taagctttct ctctccccac   13440
ccccgtctag ccaaaaagaa aagaaaggaa aaactcacac taaaatatcc atactgttct   13500
gacaacttta ttcctttaat cctttgaaaa aagcaggact tgccaacctg gtttaaggaa   13560
ttatctgttg cattcaatgt ttttgctgtt taaaaataca gactgattcc atttttgacg   13620
atgtacagtg ggccttggcg ccccagtgga ttcttccttt aagttccttg tcactatggg   13680
catcttccct gattattttg ctgttatctc tttcctgtgg gtttgttcag taggattcta   13740
tgtgtgggct cagttgtcac agaggagaca gtgtcccata cccacaaaaa aactagagca   13800
gcatcaaant atttaatttg tgaggggtct gtctcagtca ctgtcctttc tttataattg   13860
acattagcac cttgataaca cagaactgct ctgtctggcc cctccattat cgtccttcag   13920
tctggcacag tggaagccag ggccgtttgt ggagtgatcc tatcccctga cagtttagtt   13980
agtacatttt cattgcagga aacgaacgtc angttgttag ctttaactca cttgcttttt   14040
ttctcctcca tgctaacacg ttcagctggg atggtaatgt catttttaaa cattattttt   14100
ctgataatct gacttagaaa aagctattac ttttttgagt ttgagcaact acagacattg   14160
gcataatgac agtacatggg cagaggaaag caccctcttc tggacatttt aaaaagtaga   14220
ggccagacat ggtggctcac tcctgtaatc ccagcacttt gggaggccaa gatgggtgga   14280
tcatctgagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc catctctact   14340
aaaaaataca aaaattagct gggtgtagtg gcacataccc tagtctcagc tactcgggag   14400
gctgaggcag gagaattgct ggaacccagg aggtggaggc tgcagtgagc caagatcatg   14460
ccactaccct ctagcctggg ccacagagcg agactccatc tcaaaaaaa aaaaagtag   14520
aaaaaaattg aaacgattag agaaatgaat gtctgaataa ttaagcagaa caggagggac   14580
tcatgggaac cgatttttcag agaaacttg agatctttc tgtggagcct ccagattcct   14640
atagaatgga gagtttggtc agtgggtgcc gacattgggc actagagaag atgaaagtag   14700
taagagatct taggctgaaa ctgttaaact cccaaagtac agggatattt aatgcacttg   14760
ctgtcagctg caccttgaac ttcccattat gccaacagct gtgaagactg agccccgtg   14820
aacccctgaa gggccgtggc gggggtagac ttgctttcga tgtttccagg ggagcctctg   14880
ctggaggtga agacctacac tcagatcctt ccaggcacca ctgggcatgg aaagatactt   14940
gttcagggtc agaggagtag ccaccctctc ccaagacaaa atccgtaaga ccctgagaaa   15000
aggaggcagg agagaaacac aaatgcttca aattcatttt taaaggcttt ttcaaggtca   15060
aggctaggtt gtgtcccagt caagcacatg taagtagacc tcacgttgcc ttaagtagac   15120
ctcacgttgc cttatgatct ggtgagcgta gaaggctctc cattcactag ctttgtaaaa   15180
gaaacaaaat gtgctgttct tgactttctc cttataatcc tcacctgaaa acagtcattt   15240
atgagataag ctgaacatct ccctctgtaa accagcagcc aggctttccg gctgcacatc   15300
actcacgtga tggagtgagt gtagacttgt gtgtgtgatg tggggtgcaa cacattgaga   15360
```

6521

```
aatatctgct tgcatcctta tactcagtaa cattgtgttg cacgtggcaa cattgcctta   15420
aactctgtaa cattttgtta cacttggtaa cattgtgtca cacatggcaa catggcattg   15480
catatggtaa ccttgtgttg ccctcagtaa cgttgtgttt ctgtcctcga gatctgcccc   15540
ctggaggaga agacgagcgt cttaccgaat tcccttcaca tcttcaacgc catcagtggg   15600
actccaacaa gcacaatggt tcacgggatg accagctcgt cttcggtcgt gtgattacat   15660
ctcatggccc gtgtgtgggg acttgctttg tcatttgcaa actcaggatg ctttccaaag   15720
ccaatcactg gggagaccga gcacagggag gaccaagggg aaggggagag aaaggaaata   15780
aagaacaacg ttatttctta acagactttc tataggagtt gtaagaaggt gcacatattt   15840
ttttaaatct cactggcaat attcaaagtt ttcattgtgt cttaacaaag gtgtggtaga   15900
cactcttgag ctggacttag attttattct tccttgcaga gtagtgttag aatagatggc   15960
ctacagaaaa aaaaggttct gggatctaca tggcagggag ggctgcactg acattgatgc   16020
ctggggggacc ttttgcctcg aggctgagct ggaaaatctt gaaaatattt ttttttttcct   16080
gtggcacatt caggttgaat acaagaacta ttttgtgac tagttttttga tgacctaagg   16140
gaactgacca ttgtaatttt tgtaccagtg aaccaggaga tttagtgctt ttatattcat   16200
ttccttgcat ttaagaaaat atgaaagctt aaggaattat gtgagcttaa aactagtcaa   16260
gcagtttaga accaaaggcc tatattaata accgcaacta tgctgaaaag tacaaagtag   16320
tacagtatat tgttatgtac atatcattgt taatacagtc ctggcattct gtacatatat   16380
gtattacatt tctacatttt taatactcac atgggcttat gcattaagtt taattgtgat   16440
aaatttgtgc tgttccagta tatgcaatac actttaatgt tttattcttg tacataaaaa   16500
tgtgcaatat ggagatgtat acagtcttta ctatattagg tttataaaca gttttaagaa   16560
tttcatcctt ttgccaaaat ggtggagtat gtaattggta aatcataaat cctgtggtga   16620
atggtggtgt actttaaagc tgtcaccatg ttatattttc ttttaagact ttaatttagt   16680
aattttatat ttgggaaaat aaaggttttt aattttattt aactggaatc actgccctgc   16740
tgtaattaaa cattctgtac cacatctgta ttaaaaagac attgctgacc att            16793


<210> 8827
<211> 16808
<212> DNA
<213> Homo sapiens

<400> 8827
aggatgtgct gatggagctc cttgagcagt gcgcagatgg actctggaaa gccgagcgct     60
acgagctcat cgccgacatc tacaaactta tcatccccat ttatgagaag cggagggatt    120
ttgaggtatg agagtgcctt tttgtttttt tcctatttga gagcatgacg ctgtgacata    180
tacccagacc tgcatatatg tgagagagga agcaggccat gggccagaga tgagtggggg    240
tctctgaccc tccacgttac gctgaaggtg gtggccagtc atcatctcca aatagtcatc    300
gggtatcacc cagacctggg ccctacctct gtggagaccc ccacatctca aactacagag    360
taaccggcac tccactttcg aaaggctgcc atgaacagag ttttgtgatc accagttgtc    420
cctttttctga gaactcttcc ttactccacc tgcgtgaaaa aatggtgtcc cttccgtcca    480
tcctgggctt gggaggtcat ccagtttctc taggcatatc aaacagagca ggaaaagcaa    540
aggccaagaa tcacgttggg gaaccatctc tgacatcgca tcttaacttg aaaacagagt    600
ttgcttactc taatgtggaa atgtgatggg tcctcacgtg tgggctggcc tttgggtagg    660
aaatgttacc attcattaat gatcactaca agttgtgcag ccaaaatgtg tgtgtgtgta    720
ttttattca agttcaagga cttttcacct ccattatcac atttgttatt ttaaaatcga    780
ttctcctctt tgcacatggg aagaaatggg ctttgttctg cttccagag gctggcccat     840
ctgtatgaca cgctgcaccg ggcctacagc aaagtgaccg aggtcatgca ctcgggccgc    900
aggcttctgg ggacctactt ccgggtagcc ttcttcgggc aggtgagcct cctgtccatt    960
ctgcagactg tcctaagtcc tttaaaaaaa aacaaaaaca aaaacaaaaa aaaaactata   1020
ataaagttat atcttataaa ttctctgttt ctgtaattg ctaatttgat gaatttgtca   1080
tatttagtat gattcttatc ttcctcagta gtaaactttc tgctttttttt ctttcttcct   1140
gtcttttctt tattactttc ttaaggcagc ggtaagttct tcctccttaa gacattctta   1200
gcaacatctt tggtacttca gtgtggtttg caagtttgct tttcaagtct gtatgtttat   1260
ctgtctagtt attacaaact ccaaaaaaat taacatttta ttccatttac agaaataaat   1320
cacctgtttt cttatatatc tatattgcat gttttaaacc aaaattaaga ctttctggtg   1380
tcctttgtgc ctgtgcatct ttatcctttg tagtataata tctccacaag tatatttaca   1440
gtttttcaga aaccctatag gaaagggttt atctaaattt aacttaaatt ttaaccttcg   1500
agtcccttaa cattattaaa tggtataaat tataatacat atatttaggg cgtgtggttt   1560
tctatgagca ttatataacc ttcaatttat ctgttattg tcttttataa ctttatagca   1620
ataccagttt acagacagtg aaacagatgt ggaggtaatt acagtaaatg cctaaaaagc   1680
aagtaatata gtgaaattac tgcgtctaaa ctcctagttt gatgtggatg tttttttgttt   1740


                                    6522
```

```
catgctagct tgcattttttt tttactgttt tgtgcaccat tttctctctc ttaatttacg  1800
tgagaaactt taaaaaattt tcttttaaac attaacccca gttggacttt ttaattttca  1860
accttttttca cttcccatgc aattctaagc cttgtagtca aacatgattg gtgctaaaac  1920
agatgatgac tggtgatatg aaaatatttt ctgatattga gctacaggtc tttaatattt  1980
ttttctcatc ggtaaagcaa aatacaattt atacaagctt tacctaactt ttactaaact  2040
tactccagac ccccaaacgc ttcagttcat gccataaaat cctgtgtgca tgggagccat  2100
caggagaagg gaggcatgtc cacttctgag cctgcctgtc gtgggctgct catcattttc  2160
tagtgagttc tgcttcttgg gaaagtgaaa caggcttgac tcccattaga cttccctggg  2220
acagcttagt cttgtatcca aaatcttttca tttcactcaa cacttaatga ctgcattctt  2280
gaataagttt gcaatgttgt gtttttcctt tacctttgca cctagacttc atgttattag  2340
cattttcttt ctcattcaga aagcccattt cagcaggatt tttagaccca ttccttttttt  2400
tccccccttgt aataaaagaa cgcttcctag gtggtaagcc ctgggcttac gttcagggat  2460
agctctaatt gtgctttatg tcacagggat tctttgaaga tgaagatgga aaggagtata  2520
tttacaagga acccaaactc acaccgctgt cggaaatttc tcagagactc cttaaactgt  2580
actcggataa atttggttct gaaaatgtca aaatgataca ggattctggc aaggtatgac  2640
catgtttgga taagtttcat agcaatgtaa tgttgtgatt gattacatat tatatatttt  2700
taaatgtata tagaaaaaaa cacaagaaaa atattaagga ttgttggccg tgagtggcag  2760
gtgtattttc ttcctgatac ctttagtgct ttccattaca tgcttgacat taaaaaatct  2820
ttatcgccta atttttgaaa catctaattt tacaaaataa ttaacgtctg acaggatatg  2880
tcattttttag tccagctatt tagaaactct gacagaatga ggcccgtggc ttcgctactc  2940
actgcacctc ttcctgcatg tagcacatga cttgccactc tgtcactgac ggctggatgt  3000
aaggacaggt gaacagatgg gcggatgggt gaatggacac atggacaggc caaggaatga  3060
actcaccagc agcgtgactg tgggaatggc gatcattttc tgcttagaga gctgtcctct  3120
ggcattctgt tctcatgaag acccttttgg aacctgcacc tttgtcctgt acctttgtgt  3180
gtcccaccct cctcaggaca tctccaggag gtcaggtctc cctctgcttc ctgaaggtga  3240
aacatggggc aagacggttt cactcccact gcctttaaat tattcctgct aaagaaagtt  3300
aagttttaat aggtttggat acaattagaa tgaatggcca aatggctttt tctaaaatac  3360
aaataataac ttttttttttt tttttgagat ggagtctggc tctgtcacct gggctggagt  3420
gcagtggcgc tatctcagct cactgcaatc tctgcctcct gggttcaaga gattcttgtg  3480
cctcagcctc ccgagtagct gggattacag gaacgcgcca ccacgcctgg ctaattttttg  3540
tattttggt agagacaggg tttcaccatg ttggccaggt tgttctccaa ctcccgacct  3600
caagtgacct gcctgcctcg gcctcccaaa gtgctaggat tataggcgtg agccaccgag  3660
cctggcccaa ataataactt tctatgactt tatgtatttt cttctaaagt ttcaggcact  3720
tttccatctg ttttttcatt tttcttcaca atcgtctctg ttttgagaac agttctcttt  3780
catttgcctg ccttatacca gtatggtctc catgtgctct gcacagccat ttctttttgtg  3840
tcccttttta ttgctctaga aggttaaata caattaaaat gtgcaaaatt gatttgttga  3900
tttgtcttcc taataaaatta gcttttgttt ctgcatagga attgcctatg tttaattctc  3960
tatcatgtca cagaaatgaa agtaccacca attctagcaa tgtggtttta aaagcattta  4020
tatgttaaat agaaactaaa tttatcatta gattagtcta gattaatctg tacctgtatt  4080
aaattaattg atctgcagct gttgcatcta atctcagctg tctgtagatt aatgataatt  4140
tggaggccta gcttccaaac attattccta aaataaacat ttatctctct aagccaaata  4200
tattaaaaat gcagtttaag aaacaatcag agaaatccag actggaggtc attcaataag  4260
aaaaccagca ctttgggagg ccaaggcggg cggatcacct gaggtcggga gttcgagacc  4320
agcctgacca acatggagaa accctgtgtc tgctaaaaat atataattag ctgggcatgg  4380
tggcacacac ctgtagtcac agctacttgg gaggctgagg caggagaatc acttgaacgc  4440
tggaggcaga ggttgcagta gctgagatcg cgccattgca ctccagcctg ggcaacaaga  4500
gcaaaactct gtctcaaaaa aaataaaat aattcaatgt tatgggaaaa atgaatgata  4560
gggaattctt ctaaattaaa catgactagg gacataacaa ctaaatgtaa agtgtgattg  4620
ttgattagat tctgatccaa acacaaatat ctataactaa cattctggag acatttgaga  4680
aaatgttaat atagactggg tattggatgg tattagggaa tcagtgttaa tttgggtagg  4740
catgataatg tattgcggtt atagaagcaa atgtccttat ttttaggaga agctgactgt  4800
agtatcctga cgtgtaccac ttactttgaa atggttctac tggaaaaaaa aaagtctgta  4860
tgtctgtgtg tgtgtgcaca tccataagtg tatgtgtatg tatatttgaa acaaatatag  4920
caaactgcta gcagttgttg atccaagtgg tggatatgtg gatgtttgtt gtactcttct  4980
ctccgttata tttacaaata aaatgttgga aaataccacg taggtaagaa ctgagtgatt  5040
ccttcatgga gcaccaatct cccattgtgc tgtttcaatt aaaggtcaac cctaaggatc  5100
tggattctaa gtatgcatac atccaggtga ctcacgtcat ccccttcttt gacgaaaaag  5160
agttgcaaga aaggaaaaca gagtttgaga gatcccacaa catccgccgc ttcatgtttg  5220
agatgccatt tacgcagacc gggaagaggc agggcggggt ggaagagcag tgcaaacggc  5280
gcaccatcct gacaggtatg ggccccagaa gccgcatgga cacgagcccg gacacctcgc  5340
caaagagctg tccagaggga ttcagaagct tcaggactgg aagggtccttt cgagctcagt  5400
```

6523

```
tagccacccc cacacccatt tcagtttcac ·atttatctag tgcttccttt tgaatacttg   5460
ggatgttttt ctgttgatct gttgacactt ccttcttcca caagaccaga agctcatatc   5520
caatctaagg tcacttaccc ttctgagaat ctgatgaaaa tggcgtgcct tatgtgccta   5580
gatgcttttg cacacagtct aaggtgactt atggactcca ggtccagcag ccacacccag   5640
tcctgggtct ccgcacaggg agggacccgt ctcacacacc tgtctcaggt tctagcatgg   5700
cctgctcagc ggtctcaggc tgtgagtaaa tgggatgtga .gcttggatcg ccccacgctg   5760
ttgcccccgg gggctggcca gctgccactt gaatgcctcc tctgccagga agctcactgc   5820
attcagtggc tatccacgag ttcagcttag gcagttttca ctgatccctt tggcactgtt   5880
tagccagtga taacccactc tgggaaatgt gttttgcatc atttcccggt ccctggcaag   5940
tgtctagtca tcctggggtg atttttacct tctgtgggag agcttgaccc atccctgcct   6000
cattagggtc agcgacatca ctggggtaac ctaacataaa atgctttctt gaccaagaaa   6060
tatcagtggg agggccgttg agaatgccag gtgtgccagc tttcaccaca cgtcttccaa   6120
agagtggccc tagttaagtc agaccaggaa agggcctgct ccccggaagt tggggttgtt   6180
gagtttctgt ctgggtaata atacacacta tcataataag cggaaggagc gctgtggaga   6240
tgctgcaccc aggtgcttat cagctctcac cggcgaagcg tatgctttaa aaagagagac   6300
tggatggcgt ggggtttata tctcagtaaa gctgttacaa aaaaaaaaaa aaaaatacag   6360
gttttttatga attagcccag gacagcgtat tgcagggagc ttttcacact ccctatgagg   6420
gaaaagagat acaagttaaa acaaaactgt gttcttaaag tgtccctaat cctgcttgta   6480
aaataagaag acagcatata taaagcacaa ataatattgt cctcacaaac atcaccccac   6540
cccaaataat ttaattattt ttttaatgca cacatcagta gcaaattctc attaagccaa   6600
ataactgcgc ttccagatgg aatcacttta tgggaatcac cagcttacag tgtttatggt   6660
tcagctgtga taactttcct tctgaccctt taagtcagtg gttacccaag gttggtccag   6720
daccagcagc atcagcaccc ccagggaact tgttagagat ggaagttcca ggtccccacc   6780
tccgaaactg ctggatcaga aactctgggg gcggggccca gctctttgtg ttcaacaggc   6840
cctcccggtt atcctggtgc atgctcagat tagagaactg ctgcctttaa taaacctagt   6900
tcactgctga gtcagggtca ggattttta gtatggttat tgttaaggca gtgtacggat   6960
tcataaacat tcattaccat aggctgtttt cccagggcac atttctccag ggttacaggt   7020
catcattttg ttagagacta ctttagatta gataaagcac atgagcaatg ctctgtatct   7080
gcgggaacaa ggggacagag agtgcgcttc agagagaggt ggggcagaca cctgtgttgt   7140
tggcttgggg attgccgtcc acagctgtgg gttgagacag cctaagcaat ggcgaggctg   7200
tcctggggt cctgtaggcc tgggtcacag cctcattgtg tgaccttggg caggtcactc   7260
ttcctctcta tgccttagtt tcctcatctg taaaatgcaa gttaggacac ttatctcatt   7320
atattgtcat aactttgtaa atagtaagaa gcaagggaaa gagcgttctt cattttttgc   7380
tagatttcat ccgctgttga gctagataca cacaccaggg cgttctgaag gctagacctg   7440
agggttttcc ctcaagttat caaccccctca ggttcttctt ccattgcatt gctttgtacc   7500
taacctttgg ccttccaaag gtcaaaggga gcccaggcct tccctgccct ctacaccagg   7560
aaaaggctca cctttctggg tagttcccag tcagctgact gtaactgtgc aatcatttga   7620
aaaacctcat gatcaccctc cagcctcctt cagtggaaat ttctgagcct gtcccaaaga   7680
agggggggcga ggagaagcct cctccacttc tttcatggaa cttttgccaa ggagtttctt   7740
cccagtcact attccagagt cttccaaacc tggattagct tccggccctc cactttctat   7800
tcaagacaca cagaccagca gtcaccatac ttatcactgg gccttccccg tcctcctttc   7860
taaagggctg gctcagtcgg tcacctaatt gtccaccttc cagagccagt ttggactctc   7920
atgcagccat ttgggcagta atgcattcat tcattcaaca aaatgtattg cacactgacc   7980
atgttcccat tggcaggcta atgaaacaga catctgtggg cctgtgcagc tggcattcta   8040
gccagaggag acagatgata aacagtaccc agatgagtaa atataaccgt ggtagaacgt   8100
gatctgtgtt ccagacaaag caaaaggaga ctgggaacct ggagttgacc tccttcctca   8160
gaaacaggaa ggcagcccca ctcttcccct gaagcacagc cccctgtcca aatacaagca   8220
ggcatctgcc agcactgcct ccctgactag ggagcagcga ggccgagtcc tcaccatcct   8280
accagggagc tttgtggatc cccagtgcta ccacttaaaa tctgtgaaac caagtcggga   8340
acccttcacc tttcactgat aaaacattgt gaaaaggcaa caggcctata agtacgtgac   8400
atatgaggtt gcctcagggt ggacatgttt tccgcttttg tccagatgtt gggtggccca   8460
tcggaactct gtgtttcaca ggggctgggc ctgttcccca tcctgtgatg agtccttccc   8520
aattgaactc ttccctagcc agttgctaac tagagaccag gaccactccc atctgacgtt   8580
tgcttgttca aaaaaaataa taagctttta agtacatatc tacctgccta ttagtaaata   8640
tatgtcaagt gagaatatta tagatatttc tatattatat agagcaataa gaaatgtgaa   8700
atagtaaatg agaacctgct gttttttctgt tcatttttaa attaactcct ttgtgttgat   8760
gtttaggtat ctcattatga taaaggaaaa caatattaat cagattttt tggttaaaaa   8820
atatataaga aaaagtaaat attttttattt ttatttctta ttcattgctg taagtttcaa   8880
aatacctttta ttagcactac agctccaaaa gtttgtgaat ttctggttca tgaaatcctt   8940
tgcttaggag tatattcttt gtgttttttt ggtttgggtt ttaggggaat ggttttttgtt   9000
ttcttttttg agacagggtc tcactctgta gcccaggctg gagtgcagtg gcacaatcac   9060
```

6524

```
agctcactgc agctttgacc tcctgggctc aagcctcctg tgtcagcctc cccagtagct    9120
gggactacag gcatatacca ccacactcag ctaatttttt gtatttttta caaaattaca    9180
aaaattaggt ttttgccatg ttgcccaggc tggtcttaaa ctcctgggct caagtgatct    9240
accagccttg gcctcccaaa gtgctaagat tacaggtgtg agcactgtac ccaccctagg    9300
aatatattct tacttattat tttctactga tttctcagct ttgtgcaagc ttagcatgtg    9360
attcaaagtt attctatgga caaaaatgaa ttttctcaag gatattttta tggaactatt    9420
ttctggactt aatctgttat gtagtatctc aaaattgttt agtctttttt atgttgtcaa    9480
agtcatctta tatccactaa ctcattcaaa cctcagagct tccaaggaag gtttgagtgg    9540
ggaatgataa cctcatttat ttaaagacac gcttgtcaca ttaaaaggat aacaaggacc    9600
caactctctt gactttacga gacacacgat tgtaaaggaa gacaatattc tagctccatc    9660
aagtactagt atgtgtcttt ggcaagcttt gggttcctta ttttaaaaat gtaagtaata    9720
atgacatgta taataatcac ttctaataat aatcagctca ataacactaa agctcgtgca    9780
agccatgcag taattctggg gcttaccctc tgcagccata cactgcttcc cttatgtgaa    9840
gaagcgcatc cctgtcatgt accagcacca cactgacctg aaccccatcg aggtggccat    9900
tgacgagatg agtaagaagg tggcggagct ccggcagctg tgctcctcgg ccgaggtgga    9960
catgatcaaa ctgcagctca aactccaggg cagcgtgagt gttcaggtga gccaggcaca   10020
gcaggccgga gggcagcagg ggacgtcctt gccctgggt gacttgagag tcgtttccac    10080
taacaaggtc tacttgagag cctcggttta ccaagtgatc cctgctccct tcccccaacg   10140
tctgtgacat ttctcctgat atcagagggg gaggaaacct catgatccct gccccccgcc   10200
ccatgaggac tgactgtggg gacaagagcc agatctcata cactaccctg atttgtcagt   10260
atttggggaa ttctgggtgc ctgattagaa gcatcaagac tcttctaaat acaaagaagt   10320
gtggagagca gtagattttc ctataaaact gttgtttgct gtttctatg aaaattgtat    10380
ccaaaaaagt accttaagtt ttaccctctt aatggtatct tttgattaat gaattcatta   10440
ttttaatata gcccaatcaa tcaatttttc tttattggta gcatttttat gttctcttta   10500
agaaatctgt gtctactcca aaatttcaca gatgttctcc taggttttcc tcctttgctc   10560
agcatccaca tccaggtctg cagtccatct ggaattgatt tttgtatatg ttatagtgta   10620
agggtcagga tatattttt ccatatgacc ttccaagtga tatacacaat ttattgaaaa    10680
gatcatcttt gatctagata ctaacatata tgttcagttt gtgaaaattc atcaagctgt   10740
atacacttgt gatatatgcg ctttcccgtt tgtatattat actttagtaa gaggtttta    10800
aaaagttatc ttacttacat ggtttcctag ttaattggta agtgttaaat cactccctcc   10860
agtaacaagt atgactctta ttttctggta tttttaagtg tatatagttc aagcacatgt   10920
ttgttcatat gtatatgtac atgtgtgtat atatgtattt gtatatccta ttgttttatc   10980
tttcaagaag ggtatgttta tgaaagttac atgtggatta taatacatag gttttggttt   11040
ttttggttca ttttctgaaa ttatattttg tcaacttccc atcagatcca cgctaaagaa   11100
ccgtgagttg ttgcccaaca tttttgtgtc attcaccaca aaagcattta cagatgtttt   11160
taatctcttt ccttatagtc tcaaagacat atgtgccaaa ataagttagc aagtgaacat   11220
aagtattcca gcaacatgag tgattatgta acaggtccag aggccacaat tttctgtagc   11280
taaaaacaaa accactcaat caacatgatc ttggaacatc cagccctat ggaaaggccg    11340
ctggaggggt gtggcaccag tccagggtag ggctggacca ttgagctttg taaaaggcaa   11400
aatatgccct gctaatttga tggtaaactt agcgttttat aaaattccca gtcatcttaa   11460
aaagcaagaa attccatgtt gaaatgagaa gattaagttt atactcatac ctaccaaagt   11520
aacaacaaag ttgcagccag aggaaattaa ctttatcatt ttatttgcgt atttctgtaa   11580
ttgtttcatc aagcagctca ctggcgctgc agctttactg ggcagagccg tctgcggagc   11640
ttcttgtcat tgcactccaa gatcttgcta ttagacctta tggagtctca tcagccttcc   11700
tctttctatc ttcttcaaat acagaccgtc ttgtatcatt ttagatgatc agtcattttg   11760
gtcgtcttca ggtgatgaat acagttcccc ccacgcacca gcctggtgct gagttccacc   11820
ctcaacgcac cttgggctgt tcacccattg cccccggctc agaggtcccc ctctgaccac   11880
tgtggctgga acctggaacc ctcctgtgtc tccacgtctg gtgtgagttc ctgtggctca   11940
gttttcctgc cattgctaga caagtcctgc ctaccatggg tcagaaccac acacggggag   12000
ctcccctaat tccttgctaa gctcaccaga ccttccggga aatatcaagc agtgaccaca   12060
tagtcacgtt cttccccagg ctgtctcaga cgcctggaac attcttcttc ccatcccagt   12120
gtgtccagcc ttctttctca ccacgttctt acctttcctt acttatccag aatcagcaga   12180
cccttcttag ctgcttgcaa gggtggtgca gggttctggt tcactcaccg tgctgtctgc   12240
tcctaacatc tagctctcca gcacaccgca aacgctcact tcatcccagg atagcaaatc   12300
agtttgccca tggctgtcta tacaattcaa tgaaatgaac agttgggttt caaaaactgg   12360
aatagttact gcattttca attttcact gaattcacca gattggcctg ttagttcagt     12420
gtagtgcagc acaaatccca gtgactaaac accttggaag taagaatcct tgacctggat   12480
ttggaagacc tgggctgtga tctctggcgt tttgcttatt ggctcttcaa acttcaacag   12540
gcccctaagt tttccaagca ttggtttctt cttacataaa gtaaaccatc atcacaagtg   12600
ccctgaagat ggctgagatc atggaatcaa gtggtgtgca acagagtgag ctttgtggtt   12660
tctttttggg cttaagttcc tggaaggcag ggattgtgag tagctcacgc gaacgggctt   12720
```

6525

```
tttagtgcct gcaaactgaa actgagcaga tggtcatggt gattttcttc ctagtggaac  12780
tgaaaatctt tgctctttgt ctaggtcaat gctggcccac tagcatatgc gcgagctttc  12840
ttagatgata caaacacaaa gcgatatcct gacaataaag tgaagctgct taaggaagtt  12900
ttcaggtaaa gcacactgaa agcatctttt tctcttcgag tattgatcat ttctgtactc  12960
attcgggagg gagatgctgc tggttggact catgccttat cctctgcgtg cctttgtttc  13020
tcccgcctgt accattccag gcaatttgtg gaagcttgcg gtcaagcctt agcggtaaac  13080
gaacgtctga ttaaagaaga ccagctcgag tatcaggaag aaatgaaagc caactacagg  13140
gaaatggcga aggagctttc tgaaatcatg catgagcagg tgagggccgc actggctcca  13200
acaacttgga gttcttggtt aggggtttca agtacaccct atcatgactt aggccgcctg  13260
atatccttcc agaactgtga catctgaagg agaatgtagc ataccacact cctgccatgc  13320
tctagcccca ggtcatttgg gaacagctaa cagattgccc atatgctgtt atctacggca  13380
agcaggggag agcgggcccg cctcctcgtg gctctaagag gtggccatgt ttcctaagct  13440
ttctctctcc ccacccccgt ctagccaaaa agaaaagaaa ggaaaaactc acacgaaaat  13500
atccatactg ttctgacaac tttattcctt taatcctttg aaaaaagcag gacttgccaa  13560
cctggtttaa ggaattatct gttgcattca atgtttttgc tgtttaaaaa tacagactga  13620
ttccattttt gacgatgtac agtgggcctt ggcgccccag tggattcttc ctttaagttc  13680
cttgtcacta tgggcatctt ccctgattat tttgctgtta tctctttcct gtgggtttct  13740
tcagtaggat tctatgtgtg ggctcagttg tcacagagga gacagtgtcc catacccagg  13800
gaatgcctag agcagcatcc acattgtttt ttttgtgagg ggtctgtctc agtcactgtc  13860
cttctcttat aattgacatt agcaccttga taacacagaa ctgctctgtc tggcccctcc  13920
attatcgtcc ttcagtctgg cacagtggaa gccagggccg tttgtggagt gatcctatcc  13980
cctgacagtt tagttagtac attttcattg caggaaacga acgtcagtgt gtgagctttta  14040
actcacttgc ttttttttctc ctccatgcta acacgttcag ctgggatggt aatgtcattt  14100
ttaaacatta tttttctgat aatctgactt agaaaaagct attacttttt tgagtttgag  14160
caactacaga cattggcata atgacagtac atgggcagag gaaagcaccc tcttctggac  14220
attttaaaaa gtagaggcca gacatggtgg ctcactcctg taatcccagc actttgggag  14280
gccaagatgg gtggatcatc tgaggtcagg agttcgagac cagcctggcc aacatggtga  14340
aaccccatct ctactaaaaa atacaaaaat tagctgggtg tagtggcaca taccctagtc  14400
tcagctactc gggaggctga ggcaggagaa ttgctggaac ccaggaggtg gaggctgcag  14460
tgagccaaga tcatgccact accctctagc ctgggccaca gagcgagact ccatctcaaa  14520
aaaaaaaaaa agtagaaaaa aattgaaacg attagagaaa tgaatgtctg aataattaag  14580
cagaacagga gggactcatg ggaaccgatt ttcagagaaa acttgagatc ttttctgtgg  14640
agcctccaga ttcctataga atggagagtt tggtcagtgg gtgccgacat tgggcactag  14700
agaagatgaa agtagtaaga gatcataggc tgaaactgtt aaactcccaa agtacaggga  14760
tatttaatgc acttgctgtc agctgcacct tgaacttccc attatgccaa cagctgtgaa  14820
gactgagccc ccgtgaaccc ctgaagggcc gtggcggggg tagacttgct ttcgatgttt  14880
ccaggggagc ctctgctgga ggtgaagacc tacactcaga tccttccagg caccactggg  14940
catggaaaga tacttgttca gggtcagagg agtagccacc ctctcccaag acaaaatccg  15000
taagaccctg agaaaaggag gcaggagaga aacacaaatg cttcaaattc atttttaaag  15060
gctttttcaa ggtcaaggct aggttgtgtc ccagtcaagc acatgtaagt agacctcacg  15120
ttgccttaag tagacctcac gttgccttat gatctggtga gcgtagaagg ctctccattc  15180
actagctttg taaaagaaac aaaatgtgct gttcttgact ttctccttat aatcctcacc  15240
tgaaaacagt catttatgag ataagctgaa catctccctc tgtaaaccag cagccaggct  15300
ttccggctgc acatcactca cgtgatggag tgagtgtaga cttgtgtgtg tgatgtgggg  15360
tgcaacacat tgagaaatat ctgcttgcat ccttatactc agtaacattg tgttgcacgt  15420
ggcaacattg ccttaaactc tgtaacattt tgttacactt ggtaacattg tgtcacacat  15480
ggcaacatgg cattgcatat ggtaaccttg tgttgccctc agtaacgttg tgtttctgtc  15540
ctcaagatct gccccctgga ggagaagacg agcgtcttac cgaattccct tcacatcttc  15600
aacgccatca gtgggactcc aacaagcaca atggttcacg ggatgaccag ctcgtcttcg  15660
gtcgtgtgat tacatctcat ggcccgtgtg tggggacttg ctttgtcatt tgcaaactca  15720
ggatgctttc caaagccaat cactggggag accgagcaca gggaggacca aggggaaggg  15780
gagagaaagg aaataaagaa caacgttatt tcttaacaga ctttctatag gagttgtaag  15840
aaggtgcaca tattttttta aatctcactg gcaatattca aagttttcat tgtgtcttaa  15900
caaaggtgtg gtagacactc ttgagctgga cttagatttt attcttcctt gcagagtagt  15960
gttagaatag atggcctaca gaaaaaaaag gttctgggat ctacatggca gggagggctg  16020
cactgacatt gatgcctggg ggacttttg cctcgaggct gagctggaaa atcttgaaaa  16080
tatttttttt ttcctgtggc acattcaggt tgaatacaag aactatttt gtgactagtt  16140
tttgatgacc taagggaact gaccattgta attttgtac cagtgaacca ggagatttag  16200
tgcttttata ttcatttcct tgcatttaag aaaatatgaa agcttaagga attatgtgag  16260
cttaaaacta gtcaagcagt ttagaaccaa aggcctatat taataaccgc aactatgctg  16320
aaaagtacaa agtagtacag tatattgtta tgtacatatc attgttaata cagtcctggc  16380
```

6526

```
attctgtaca tatatgtatt acatttctac attttaata ctcacatggg cttatgcatt    16440
aagtttaatt gtgataaatt tgtgctgttc cagtatatgc aatacacttt aatgttttat    16500
tcttgtacat aaaaatgtgc aatatggaga tgtatacagt ctttactata ttaggtttat    16560
aaacagtttt aagaatttca tccttttgcc aaaatggtgg agtatgtaat tggtaaatca    16620
taaatcctgt ggtgaatggt ggtgtacttt aaagctgtca ccatgttata ttttcttta    16680
agactttaat ttagtaattt tatatttggg aaaataaagg tttttaattt tatttaactg    16740
gaatcactgc cctgctgtaa ttaaacattc tgtaccacat ctgtattaaa aagacattgc    16800
tgaccatt                                                              16808


<210> 8828
<211> 1263
<212> DNA
<213> Homo sapiens

<400> 8828
tgttaagtcc atttagcaag atcacaggat acaagattag tatacaaaaa ttaacttctt       60
cattcttata ctatggtttt actgtatagt tcatgattac ttaatgtaat ttttagaaac      120
aaataagctg gatgatattt aatcttattc aaacaaagca ctttccttta aagtgatcat      180
caaaacttta aaacagtgct atttacaata gcataaaaaa tatcgccatt tatttcctat      240
ttagatatac tgacattcat ccatatgaaa atatgcaggt cattagctta ctataattta      300
cttttgactt aatggggcat aaataaaact ttcatagtac acatgaggtg gatatttgat      360
acacagaaca tttgcggtgg gctttctgtg ggttagatgt aaagcccaca tattttaata      420
ttcactattt taaatgagca atgcatgagg ggaatgcagt gtcagtacct ggcctatttt      480
taaactagtg taatcaccct agtcatacca ttcagtatgt ttgcttttta aaataagtaa      540
ccacaattaa gttgttgtag cccttgcact tcaagagatc tagtctttac tttcagttgt      600
ctgttaggtc cattctgttt actagacgga tgttaataaa aactatgcga gcctgaatga      660
attctcagcc aaatttagtc ttgtctctca tcttgattgg attaattcca aattctaaaa      720
tgattcagtc cacaatagct ctaggggatg aagaatttgc cttactttgc ccagttccta      780
agactgtgag ttgtcaaatc cctagactgt aagctcttca aggagcaaga ggcgcatttt      840
ctccgtgtca tgtaattttt ctaaggtgct tggcagcact ctgtaccctg tggagtactc      900
agtacctttt gtttgatgtt gctgacaaga cctgaaaaaa aatcccttaa aaaaaaaacc      960
cattaaagtg tagcaaaacc gaaaaaaaaa aaaaaaaaaa aaatcctgtg gtttgacaca     1020
aggatgggca catatatcaa tggaacaaaa cagagagtcc agaaatggac ccacacactt     1080
atgatcagtt gatttttgac agaggttcaa aggcaatcca atagagaaag catagtctct     1140
catcgaatgg tattgaaaca attggatata catatgcaaa aagaatatt tatacttcat      1200
tagaaaataa cccaaaatgg gtcatagtct aaaatgtaaa atgtaaaact ataaagcttc     1260
tgg                                                                   1263


<210> 8829
<211> 376
<212> DNA
<213> Homo sapiens

<400> 8829
tgggaagaga taaagaggta gcaaagggtc gccacgaccc accagaatcc acagcccact       60
tatgcactca tgacgccatt gggacttacc cagcatacgt ttgttccatg tcgctgacat      120
cccagccggg gctaataaac cttaaggcaa acatcagcat gtctgggaga agagcctggc      180
gctgagctgg atcgtctagt cataaatgcc tcatccagaa accataaaac tcaagtcacc      240
atgtagtaag ataaatagaa gtctagaaag agcccatgtc agataaaggt aagtttggaa      300
ggcgaccaag ccttgcttat gacaggagtg gagagaggag ccatctctaa gttgggaaca      360
tcctgcaggg aaacat                                                      376


<210> 8830
<211> 1261
<212> DNA
<213> Homo sapiens

<400> 8830
```

6527

```
tgttaagtcc atttagcaag atcacaggat acaagattag tatacaaaaa ttaacttctt        60
cattcttata ctatggtttt actgtatagt tcatgattac ttaatgtaat ttttagaaac       120
aaataagctg gatgatattt aatcttattc aaacaaagca ctttccttta aagtgatcat       180
caaaacttta aaacagtgct atttacaata gcataaaaaa tatcgccatt tatttcctat       240
ttagatatac tgacattcat ccatatgaaa atatgcaggt cattagctta ctataattta       300
cttttgactt aatggggcat aaataaaact ttcatagtac acatgaggtg gatatttgat       360
acacagaaca tttgcggtgg gctttctgtg ggttagatgt aaagcccaca tattttaata       420
ttcactattt taaatgagca atgcatgagg ggaatgcagt gtcagtacct ggcctatttt       480
taaactagtg taatcaccct agtcatacca ttcagtatgt ttgcttttta aaataagtaa       540
ccacaattaa gttgttgtag cccttgcact tcaagagatc tagtctttac tttcagttgt       600
ctgttaggtc cattctgttt actagacgga tgttaataaa aactatgcga gcctgaatga       660
attctcagcc aaatttagtc ttgtctctca tcttgattgg attaattcca aattctaaaa       720
tgattcagtc cacaatagct ctaggggatg aagaatttgc cttactttgc ccagttccta       780
agactgtgag ttgtcaaatc cctagactgt aagctcttca aggagcaaga ggcgcatttt       840
ctccgtgtca tgtaattttt ctaaggtgct tggcagcact ctgtaccctg tggagtactc       900
agtacctttt gtttgatgtt gctgacaaga cctgaaaaaa aatcccttaa aaaaaaaacc       960
cattaaagtg tagcaaaacc gaaaaaaaaa aaaaaaaaa atcctgtggt ttgacacaag      1020
gatgggcaca tttatcaatg gaacaaaaca gagagtccag aaatggaccc acacacttat      1080
gatcagttga ttttttgacag aggttcaaag gcaatccaat agagaaagca tagtctctca      1140
tcgaatggta ttgaaacaat tggatataca tatgcaaaaa agaatattta tacttcatta      1200
gaaaataacc caaaatgggt catagtctaa aatgtaaaat gtaaaactat aaagcttctg      1260
g                                                                       1261


<210> 8831
<211> 376
<212> DNA
<213> Homo sapiens

<400> 8831
tgggaagaga taaagaggta gcaaagggtc gccacgaccc accagaatcc acagcccact        60
tatgcactca tgacgccatt gggacttacc cagcatacgt ttgttccatg tcgctgacat       120
cccagccggg gctaataaac cttaaggcaa acatcagcat gtctgggaga agagcctggc       180
gctgagctgg atcgtctagt cataaatgcc tcatccagaa accataaaac tcaagtcacc       240
atgtagtaag ataaatagaa gtctagaaag agcccatgtc agataaaggt aagtttggaa       300
ggcgaccaag ccttgcttat gacaggagtg gagagaggag ccatctctaa gttgggaaca       360
tcctgcaggg aaacat                                                        376


<210> 8832
<211> 376
<212> DNA
<213> Homo sapiens

<400> 8832
tgggaagaga taaagaggta gcaaagggtc gccacgaccc accagaatcc acagcccact        60
tatgcactca tgacgccatt gggacttacc cagcatacgt ttgttccatg tcgctgacat       120
cccagccggg gctaataaac cttaaggcaa acatcagcat gtctgggaga agagcctggc       180
gctgagctgg atcgtctagt cataaatgcc tcatccagaa accataaaac tcaagtcacc       240
atgtagtaag ataaatagaa gtctagaaag agcccatgtc agataaaggt aagtttggaa       300
ggcgaccaag ccttgcttat gacaggagtg gagagaggag ccatctctaa gttgggaaca       360
tcctgcaggg aaacat                                                        376


<210> 8833
<211> 1263
<212> DNA
<213> Homo sapiens

<400> 8833
tgttaagtcc atttagcaag atcacaggat acaagattag tatacaaaaa ttaacttctt        60
```

```
cattcttata ctatggtttt actgtatagt tcatgattac ttaatgtaat ttttagaaac    120
aaataagctg gatgatattt aatcttattc aaacaaagca ctttccttta aagtgatcat    180
caaaacttta aaacagtgct atttacaata gcataaaaaa tatcgccatt tatttcctat    240
ttagatatac tgacattcat ccatatgaaa atatgcaggt cattagctta ctataattta    300
cttttgactt aatggggcat aaataaaact ttcatagtac acatgaggtg gatatttgat    360
acacagaaca tttgcggtgg gctttctgtg ggttagatgt aaagcccaca tattttaata    420
ttcactattt taaatgagca atgcatgagg ggaatgcagt gtcagtacct ggcctatttt    480
taaactagtg taatcaccct agtcatacca ttcagtatgt ttgcttttta aaataagtaa    540
ccacaattaa gttgttgtag cccttgcact tcaagagatc tagtctttac tttcagttgt    600
ctgttaggtc cattctgttt actagacgga tgttaataaa aactatgcga gcctgaatga    660
attctcagcc aaatttagtc ttgtctctca tcttgattgg attaattcca aattctaaaa    720
tgattcagtc cacaatagct ctaggggatg aagaatttgc cttactttgc ccagttccta    780
agactgtgag ttgtcaaatc cctagactgt aagctcttca aggagcaaga ggcgcatttt    840
ctccgtgtca tgtaattttt ctaaggtgct tggcagcact ctgtaccctg tggagtactc    900
agtacctttt gtttgatgtt gctgacaaga cctgaaaaaa aatcccttaa aaaaaaaacc    960
cattaaagtg tagcaaaacc gaaaaaaaaa aaaaaaaaa aaatcctgtg gtttgacaca   1020
aggatgggca catatatcaa tggaacaaaa cagagagtcc agaaatggac ccacacactt   1080
atgatcagtt gattttgac agaggttcaa aggcaatcca atagagaaag catagtctct   1140
catcgaatgg tattgaaaca attggatata catatgcaaa aaagaatatt tatacttcat   1200
tagaaaataa cccaaaatgg gtcatagtct aaaatgtaaa atgtaaaact ataaagcttc   1260
tgg                                                                 1263


<210> 8834
<211> 18007
<212> DNA
<213> Homo sapiens

<400> 8834
tcaaaaactt tagtcgttat aacaactgtg actgttgaga aatttcactg ttttcctgca     60
ttcctggcgc gggactctag ccagaggctc cgaggacttt gtagcgactg tcccaagcgt    120
ccagttcgat gcttctcagg gcggcttgct ttaagggccc accctaaat ttgggttgta    180
aaaatttttg aggtaatgct tgttcaagtt cgcttaagtg ttcactcagc ccaacacgcg    240
ggttgggctt gaggttcggc acccgggcag cctcaccccc cgcgtcaggc gcgcgcacac    300
agtaggtccg cgacccttag ccctccacta ggcagccgc ggggatgggt ggccgggccg    360
cccacacggg cagcaccggc actgcgcatg ctcggcgcgt cggcgcaggt ttccgcagct    420
gaggggggcag ctccgcggcg gcgtccgggg tctccagtag ggctgacgct ccggtgctcg    480
cacaatcccc cgcctcggct ggcaacgggc gtccctccac tccccgagtc cccggcagcc    540
gccgccaccc cagcgcgccc cgatctggcc ccctgccccg cgaagatggc tgccgtacgc    600
cgggcccgca gttattgccg ctgcctggtg cgcttctccg accgagaact ctgctaagct    660
ccgctgcaga gacaggcagg agtagacacc cggacaccca gcacccctcc tccgggggggc    720
ggtgcagagg gggcacggag agccctcga gcgcagcagg ccgccccgcc agcatggtaa    780
cctggccagg gggctcgagg gtggacgccg cggggcggga gcgtggtgtg cagaggggcc    840
gggcctaggg ctggggggtcg gcggggactc tggggaggag tgggagcttc acggctgcca    900
cccgttagag ggccctggcc tgagaaggag tgcgtcgggg ggcggggggt gccaaccctg    960
gcttctcccc aggattcctt cctgctgagc ctccccaacc cccgccgagc tcgatgtgag   1020
gaggagggtt tgcaggacag ccggggaaaa tgtcccttct cggctcactg agtatattga   1080
accagtctcg gtcctctcaa gggatttat cagaagcatt gagcatagat tgaggtaagc   1140
tgtcacagcg cctgaattcg ggagggagct ctggcaagag gagacacttg ttgattgctc   1200
ttctgcggaa aagccaggcc caccgacagt ccctgccggc accttgagga gccctgggtg   1260
taggacgcat ctgccccgcg aggcgtcatt ccctgggagg atgttggcag gcggtcctgg   1320
cggagtgggg ttggagggtt cgtctccgcg gcgtcggtgc cgtccaaatg agagactgag   1380
ctaagttgca gagcttgaca gtgcagattc catgagactg ttccatattg gaatacgtag   1440
tctctgccct atgcctttct ttggtttaga ataaattgtt catctgagaa actaatctct   1500
ggctggggct taaagaatca gggatgcaat aattccaaac gatttaattt atagtggact   1560
caaatattta ttgcataaat gaatggctga atttattttt attaaattaa tctggaggat   1620
agaaaaggca attgcccctg cccctaaact ttcagaagta gttctctgac cgggattaag   1680
tacttagcct ttataattta ttaatcgcac ctgtgaaaca ggagtaacat gatgaagaca   1740
tggactactc atacacatga gctattcaag tgaaggtgat atttaggtca aactcgatta   1800
tgaaaaataa aaggaaaacc tccaggtggc atctgaggcc ctacttattt caagtagtag   1860
ttgaattgac caaatgtcaa ctcagccgat cccagatata atagtttgtt tttgtgatca   1920


                                   6529
```

```
tactgtcaaa atcaaagtaa gaatggttta gagctccact gtaacacagg ggagaagaaa   1980
gatgctgtct atattacact tctcccattt cctttcctca tccttcagat acacattatc   2040
cagatggcat tttatttgtc gattcagcca atatttttga gtacctatta gcctggcata   2100
gtgtgagact ctggtacaat actagatctt caatataacc aaacctgcaa ggtgatttat   2160
gataaacttt taatcacaga atgtcacatg aaaagggacc tcagtagatc accatacctc   2220
tttatagatg tcccatagac atgacagctg aggcctagac aggcctttac tacaaatcaa   2280
gcaatgtgtt tgaccttatg gttacagagg taactgagat gtgttcctgt cctggatgcc   2340
ttaaatctag taaatgaaac agccaacctc agtacaaatg ttgtgataaa agtaagcaca   2400
agtgttatgg gaacacaaaa atgttgaaaa atgcttctga ctaagatgaa ccctgagctg   2460
aatcttgaag aatgagtaga aatagctaag tgaggaagaa ggcattccag atagagcaag   2520
cagcgtatgc aagccaactg gacagagcag gggaagctct tgaagtcagt ttagaatgac   2580
tgctaggcaa gagttagaaa actaaattac aaaggatacc ccacagaact caggtcccct   2640
cgcattacct gtacttagag tttgcaataa taaagcagac tcttgagaag agagagaaat   2700
acacttctca gtgggattta tacgctcagt ctttcattac atattttcct actaatggtg   2760
ttcttagtag gaaaagctcc caacttaaag aaactaaaaa ataatgtatt tgacaataca   2820
ttaatcctta aattttccat ttttctagaa attcatctga gttcttgatc tcatttattt   2880
cttcacagat gtgtgcttta cagtgtgccc agcattttac catatactaa ctggttcaag   2940
tctgaaaggc acctctgctt tgagtctgct tgccagagat aagataggag gcaaggctaa   3000
tttatgttct gtaatatagt gcaagtatat ctggtagctg tgttaaagat gtgtgttaat   3060
ataaacatta ccctcccccc cctggccgcc ctgaaataac atatgactaa aatttgcaat   3120
tgtaaaactt accatctttg gaaccagtaa aattaaatgg gttttattat tatctagctt   3180
accttgaagg ccatttccct gattgccaca tttctttaca gtaagtgttg agcaagtttc   3240
atttcctaat aaatctatta gctaacagac tgaactgagg caacatgcca ttttcactgg   3300
aaggtaggat ttagtttaat ttagcaaaca tttattgaga ataaaaggat aaaattaaag   3360
tcatctgatt gaaaccttta ttaggctcca agtcacacac agtaattcca gtctagcttt   3420
attccactga agccgatcca atatataaaa attggattta tagacagata aaatagaagg   3480
ggtttcttta caaaagcatt tactattaaa agtctttgac taagctttcc tagtacatat   3540
aaaatacaca gaagtcatat tttcatagaa cacatttaat aacatgctag ctgtataaaa   3600
gaagtgacat catcttacgg aatatatata tatatgtgtt tttttttttt ttttgagaca   3660
gggtctctct ctgtctcctg ggttggagag cagtggtgca gtctcggctc actgcaacct   3720
gcatctccca ggctcaagca atcctctcac ctcagcctcc cgagtagctg gggctactgt   3780
gtaccaccac cccctggtaa tttttgtatt ttttgtagag acggggtctt gccatgttgc   3840
ccagccttgt ctcaaactcc tgggctcaag cagtccttcc acctcagcct tccaaagtgt   3900
tgggattaca ggcatgagcc accacaccct gcctggactg tattctctta agtgatccat   3960
gaagcaaaaa ctatctgcta cagccaggta tggctgcaca agcctgtagt ctcagctact   4020
caagaggtgg agcagaagga tctttggagc tcaggagttt gaggccatcc tgggctgcat   4080
aaggagactc tgtcccaaga aagcaataac tatttgctga actccatagg acaactaaat   4140
gttactattt tctgaaacaa agttgttatt tttagccacc taacaataca ttttaaccta   4200
gaaccagtg gatttgttta ttctacagta tcaaaaaaaa ttcaagtatc aagttatatc   4260
tgattggtat cattaaactt acctgtgaag aagataacta taaagaagca atgttgtatt   4320
tcattaacat gaaacattag agtattttct gttttgggac ttgtagaagt ttatggacac   4380
taaaattatt tgggcttttt gccttagact caattatgtt tggaacatct gtcacagcac   4440
cttgtcaact gcattctaga acatttctcc tcctgatgga aaatacaaca tgacctatga   4500
ggcagtcttg caaaagaaaa aagaaatagc agaatctaat ctagcctttc aagatcctgc   4560
cacaatttat aggaaataag agtaagaggt caaaggaaca tatttattga cacctcagca   4620
aaatctagct tctacagaaa aacgacccag tttcatccca aataaattac aagaaaaaag   4680
agtgaggatt acaaaagact tgagacatat caagcaatta caatgtggac tttatttgaa   4740
tcttgatttc acaaactgtg aaatatatgt attttacata tgacatcttg agaaatatga   4800
atactgtgac ttgatatttg atctaaggaa ttacattgat aattattgaa gttgggtcat   4860
gagtacttag ggattaattc tctttaagtg tttttctcat aaaaagtttt aaagtcttgt   4920
agaactaaaa aaataccaaa gatgttctaa ttttatttca tttttttcta agaagaataa   4980
tattttcctt ttcttttttc cttttttttt tttttttttt ttttatgatg gggtctctgt   5040
catccaggct ggagtgcaat ggtgcagtct cggctcactg caacctccat ctctcaggct   5100
caagcaaccc tcccacctca gcctcccaat tagctgggac cacaggcgtg taccaccacg   5160
cctggctgat ttttgtatt tttagtagag atggggtttc actatgttgg ctaggctggt   5220
cttgaactcc tgacctcaag tgatgctcct gcctcagcct cacaaagtgt ggggattaca   5280
ggtgtgagcc accgcacctg gccagaaaaa gagaaaataa tttttattat agattatcag   5340
tagttatgta tattaatgaa gaatttggct tcatttacct aattagatta atcataaatc   5400
atttatgaat agtaatagac ttgaattgtt actttatatt acacagttgg ccctctgtac   5460
ctgcaggttc tgcatcctgg gattcaactg tggatcaaaa atatttgggg gaaaaaaagc   5520
aatacaacaa taaaaaataa tacaaattag gaaaaatata ctacaagaac tatttacatg   5580
```

6530

```
gcatttacat tataagtaac ctagagatga cttaaagtat atgagaagat gtgcataggt   5640
tatatgcaaa tatgccatat gagggactgg aaaacccagg gattttggtg tcctggggggc   5700
tcctggaact aatcacctgt ggatactgag ggacaactgt aattaaattg attttttggat   5760
ggatgcaact gatgttaaat ttggcggggg ggaaatgtta ggattcacaa taacgtgagt   5820
actgtgggtt ggagtagaga atatgctttt cagactcatt ttcctttgga aattaatagt   5880
aaggtctcaa gtgcccccta cagccttgct actcaaagtg ggttccacaa agtgttgaca   5940
gtatggtact aaatagaaag tggctgaatg agaaatgtag attgcagagg gcaactggtg   6000
tgtttatatg cctgacatta tttgggtttt ccccccctcag gcagaagctg aggaagattg   6060
tcattctgat actgtcagag cagatgatga tgaagaaaat gaaagtcctg ctgaaacaga   6120
tctgcaggca tgtttcttca attgtgtctt tgattttttat tccattgttc ccatacatat   6180
gcagaaattg atcataatca tgggtatttg taggttatta ctgtttgcat ggaatttaac   6240
tgtttccata ctggtttata gaatacttaa aactatgtta tggctttctt tgtgaaaaga   6300
aatatcaata atggttgctt gtagtttaac atgggtttaa agtattcaaa ctaaggctta   6360
cgcatgactc aaaacccata atcttaaaaa gattgatggg tttgaccacc taaaagttta   6420
aaacctgtgt ataagaaaag gcatcataaa taaagttaag agaaatagcc agctggaaaa   6480
actgtttatt atatatgggc agaggattca tctcattaca tagagcactc atatatttgg   6540
aagaacagag gataaaaaga tatgagtgga ctgttaatgg caaaataata caaatggcca   6600
ttaaatattt gaagagataa ttagcctcat taataattta atcagattgg tgaataatgt   6660
gcatcgctgt ccaagctgtg agaacactca tgcagtgtac atgaaaatgt aaattggtac   6720
agctttctgg agggcagact ggtgatatgg atcaaaatga aaaacatgca ttcccttgat   6780
acagcaattc tacttccagg aaattaattt taaggaaata gtggggaaag taaatatgca   6840
actataaaga tgtttagtat agcattgttt atctggaaaa acatcataca acttaaatat   6900
tcattacctg ttattaagta atgatgcatc catacagtga aaacactaca gccatttaaa   6960
aggatgaagt aaatctttat acattaaaag agaaaaaaag ttgctgtaac tagttaagtg   7020
tgtctcactg cacttgtaag gttaataata attatttgga acagctcatc tagtagacat   7080
tgaatgctgc taaagattct gcaggtcaga gatctatgtg taacaggtta aaagcgtagc   7140
aacaaagcag tgtacagaat atagagaaaa attaatttaa aacattctag atacgtcttt   7200
ttttaaaaaa aaaaaaggaa gccaggaata acatatgcat ccctgttagc aatggctgcc   7260
tttgggcaga acgtgtaacc cagtttgggt tccccaggaa gcagactagg tgaagattgc   7320
tgtgcaggaa gtttattaag gagtattctt gggatcaaca cctatggaag ggagagaggg   7380
aaacaaatgg gcagggagaa gaccagctgc aatgcagtct taatggactg cttagccatc   7440
ctcgagggag ttctgaagat gaaatacccct ttcagagatg acctgagttg caaagagcca   7500
agactttatt agccgttgat cagtcattgg gtggggattg agaggacagt gtgattttgc   7560
tgaggcaata cccaaaaggg ctgacaactc aagtgttttc agatagaact ctcagcagtt   7620
tgggtaacaa gttctttatt tctgaaaggg aatctgggca acacaccaga gtctacctta   7680
tagggttcac tttttatgtg cttttaattt ttttttttttt tgagatggag tctcgctcca   7740
ttgcccaggc tggagtgcag tagcacgatc tctgctgact gccaacctct gccacccgag   7800
ttcaagcaat tctcatggct cagcctccca agtagctggg attacaggtg cccgccacca   7860
cacctggcta atttgtttgt attttttagta gagacagggt ttcaccatgt tggccgggct   7920
gttctcgaac tcctgacctc aggtgatccg tctgcctcgg cctcccaaag tgctgggatt   7980
ataggcatga gcctctgtgc ctggccttta cattttttgaa ataacaaata tttgaaaaaa   8040
catttttcttt ttgaaataca gaatgttaat agatttttggg cttacctaca gaatttttgg   8100
cagcattctt aatgtctact agatgatata gtcattaaaa aattattgga agcttataac   8160
ttcagtctgt aagtgatggc ttatattttc aattctaatt aaaatttggt tttccaatat   8220
aatttgactt ttggtgtact gacatgtatt ttatgctaat tttcttgatt ctttaagttt   8280
tgagcagaaa attattttaa aagatgtatt taatggatat ttaataattc agaagacagt   8340
gatttctgga cttagagtaa taagtatata cgtggaagta gatagatgtt ggacatattg   8400
atacattgtt ccagagttga gctacccttc cttgatgagt cctaaaatgc tgttctcccc   8460
ataggcacaa ctccagatgt tccgagctca gtggatgttt gaacttgctc caggtgtaag   8520
ctctagcaat ttagaaaatc gaccttgcag agcagcaaga ggctctctcc agaaaacatc   8580
ggcagatacc aaaggaaaac aagaacaggc aaaagaagaa agttaagta ttatagatat    8640
tgtaacaaat tacattttttt ttttttggc acatggaaat tttcactgac acagtaagta   8700
ggcattataa ccagactttc gggacataaa cacatatctt gtaaaataaa aattttgact   8760
agtatactag tttatatatt tctcacaatt tcttctaggt actttggatg gtaccactac   8820
tcctgcatgg cttttttctc tgtgggtaca ctgtcttcat tgagctgtct tttgttaatt   8880
tatagacctc tgggattcat gtggttccta aaagattggt gtctctgaat ttattaacag   8940
aaccaaaaag aaaaaacaga attttctaaa tttattaata gaaccaaaaa gattgctcac   9000
atgttaatgt ctttccagag gtcttaattt catgcagtat tttgttatat tttgaattga   9060
tcagcttaca ataatgcatt aatcatttcc ttattctgga aaattttgaa atattttcac   9120
actgaaaata ttttgaatgc tgtctaacat tcatatctct tctggtactt actcacacag   9180
agtaggcaca gcataccatt tcatttctta ttcttcttcc atagaggctg ccatcttttt   9240
```

6531

```
accatcagat ccaagtttgt gtttataatt agtcatcaaa taattggcat taccatgatg   9300
acttaccttc tatctcctct taatttttat tttgaaataa ttacaggtcc acaggtatag   9360
ggaagtcctg tgtgcccttt aacctcctcc gatggtaaca acttgcataa ctatagtaca   9420
atatcaaaaa cgaggaaata gacattggaa caatccacag tttacttgga tttcctgagt   9480
ttacaagcac ttgtctgtgt gtatgtgtat aaatagttgt ttgcagtttt attacaaggt   9540
agcttcatgt aaccaccacc acaatcaaga tacagaactg ttttatagtt atatactccc   9600
tttccctagc cattcgtaac cactggcaac cactagtctg ttctccattt tgtaattttg   9660
atattccaag aatgttgtat aagtggaatc atccagtatg taaccttttg agattggctt   9720
ttttcactaa gtataattcc ctcaagatca gtccaagtta ctatgtatca gtagtttgtt   9780
ccttttttatt gcagaatagt attgcatggt atggatgtac cccagtttaa ccatttattg   9840
gttgaaggac atttgagttg tttccaatat ttggctgtta tgaatggagc tatggaaata   9900
tgtgtgtagg ttttctcatg aacataattt tcacttctct gggatgaaac cccaagagta   9960
caattgctaa gttctatagt aagtacatgt ttgatttaa aagaaactgc caaagtgttt   10020
tctagagtat cttatattaa gttcccacca gcaatgtatg agtgatccag ttcatcctca   10080
tcagcattta gtgttgctac tttttaattt aatttaatta atttatttat ttattttaag   10140
acagagtctc actttgtcgc ccaggctgga gtgcagtggt gtgattccag ctcactgcaa   10200
cctctgcctc ccgggttcaa gcgattctcg tgccttggcc tcccaaatag ctgggattac   10260
aggccccgtc agtaacgctg ggctaatttt tgtatttta caaatttgta ttttgtatct   10320
agaatgcaaa aagaacttcc aaaacacaat attaaaaata ttagcaatct agctgggtgc   10380
ggtggctcac ttctgtaatc ccagcacttt gggagcctgg ggtttcacca tgttggtcag   10440
gcttgtctcg aactcctgac ctcaagcagt ctacctgctt cagcctccca aagtgctggg   10500
attacaggag tgagccactg cacctggcct ttaattttat taatagccat tctgataggt   10560
atgtagtggt atctcattgt cattttaatt tgcatttctc taatggcttg tgatgttgaa   10620
catctttttca tgtgcttatt tttcatctat taatatatat tctctctctg aaatatctgt   10680
tgatgtcttt tctaattgga ttacatatat atatataatt attttttttt tttttttttt   10740
ttttgagatg gagtgtcact gtgtcacccc aggctggagt gctgtggcac gatctcagct   10800
cacagcaagc tctgcctccc aggttcaact gattctcctg cctcagcctc cagagtagct   10860
gagactgtag acgtgtgcca ccacaaccgg ctaattttg tatttttagt acagatgggg   10920
tttcatcttg ttggccaggc cagtgtcgaa ctcctggcct caggtgatct gccgacctca   10980
gcctcccaaa gtgctgggat tacaggcgtg agccaccgcg cccagccaga tgctaatatt   11040
tttgatgttg tgttttggaa gttctttatt ctagatgcaa gtctttatt gaatatgtgg   11100
cttgtaaata ttttcatcct cttaacaggg catttcacag agcaaaaatt tttaattttg   11160
acaaggtcca gtttatcagt ttttccttt gtgaatggtg cttttggtgt caagaactct   11220
ttgcctagtc ctaggtctcc aagattttct ttgtttctt ttcttctaaa aggtttatgg   11280
atttttacatt taagtccatg atccagtcaa gttaatttt atgtaaagta tgaggtttag   11340
gtcaaggttc attaatttgc ctatgaatat ccagttattt tgcacaattt attaaaaagg   11400
ctctccttct gccatccata ctaattttta atgcaggttt tcaaaaattt ttactttata   11460
tttttatagg ctcgagaact cttcctaaaa gcagtagaag aagaacaaaa tggagctctc   11520
tatgaaggta aaaattcaga gcccaggttc atatcataac atttctgaat aatgactctg   11580
ttattaacca tatttttttt tctataactt atttggtata gaacatcact tttcttaata   11640
cattcttcct tcagtactca ttggaaattg gttccaggac cctttgtaga taccaaaatg   11700
ctcaagtcct ttatatgaat ggtgtaatat ttacatataa cttacttatt atgtaaatag   11760
ttattatact gtattttttt tttaaatttg tatttatttt aaatattttt gatctgtagt   11820
tggttgaatc agagaatgtg aaacccatga atacagaggg ccagctatat ttgaaattgt   11880
tttttaaaaa ataaaaaata gaaattgttt ttctatataa cctgtctttt tgcaaaaaaa   11940
tattgctggg aaacatcatc atgttggtag gatgagcaaa ataacttttt tttacattta   12000
gctttagtta ttcttcatta ataaagtatt taaaaattat tcattttaaa atatgctctt   12060
tttataggtg aaaaattgctt cagaggatgg gaatataaag gataaattga ggaaaaaata   12120
catgtttttc tttctaagtt ccaatttaca tattaccaac agaaatatgt ggtaatggcc   12180
gggcgcggtg gctcacgcct gtaatcccag cactttggga ggccgaggcg gcggatcac   12240
gaggtcagga gatcgagacc atcccggcta aaacggtgaa accccgtctc tactaaaaat   12300
acaaaaaatt agccggcgta gtggcgggcg cctgtagtcc cagctacttg ggaggctgag   12360
gcaggagaat ggcgtgaacc cgggaggcgg agcttgcagt gagccgagat cccgccactg   12420
cactccagcc tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaa aaaaaaaaa   12480
aaaagaaata tgtggtaata tatgtgtcag ctttgtgtct tttattaacc caatagaaat   12540
gtgtaaataa agtggtagga ctatttgcca tattaggttt gtaattatgc tttccttttg   12600
tgatagtaaa gataataatt gatgcatagg aaaaatcctt gtgcttgaat cgtttgaaaa   12660
tgccccaaaa ctaacatcat tcagagttac tgcatttata tgcaagtttc ttctagtgat   12720
attttcttt agattttag aaaggcccag ttgatcaagt ccctgtgcag ccttcattgg   12780
tttgtgaaat tcgcatctcc acttagtgta tggtgtaatt catccagaat aatagaacat   12840
ggcagaatat attgaatcat aaactccttt gtagggaaaa agaactagtc agcctctaca   12900
```

6532

```
gctccaagtt ctactggtgt atctctgtgg ggagagttat tgaatattac agctctaaac   12960
tacctgtcta ggaaatttgt aaaaaataag ttttgaagat tacttaggta aataagaggc   13020
agctgggcta aaagaagtta aatttaaagg ataatttaaa aacaaaaaca aaaactattc   13080
tttattccac ccagtaggaa gcatttaatt ttcctcaact ctgtgtctta gaaaagtttg   13140
cttagaagtg ttttttggcca ggcatggtag ctgacacctc taatctcagc actttggcag   13200
gctgaggcgg gaggatcgct tgaacccagg agttcaagac cagcctgggc aatatagcaa   13260
gatgttgtct ctacaaaaaa tttaaaaatt agctgagtgt gctggctggg gcatgcctgt   13320
agccccagct actcaggaga ctgaggtggg agaatcactt ggacctggga ggtggagtct   13380
gcagtgagcc aagatcgtgc caactgcact ccaacctgga caacagagtg agaccttgtc   13440
ttaaaaaaga gagaagtatt tttgttggct atagcaattg catcttcaga gcccaaagaa   13500
agacaactat ttaaaaatca tgatacgtaa gagggtgagg aaaaatatgg gaagggctaa   13560
tatataagag taaaatacaa catcttaagt ttagggaaaa gtttctttct gagcattaag   13620
gtttggaaat agttttgtgt cactgaactg ctgttgcatg tagaaaaaca gaatttggcc   13680
gtttgtaaag aaagttacca aattaaacca cagttaaggg taatcaaagg aaatgacaaa   13740
aatgtgtggt cacagctaat ttagctttat ttcttctttt agccatcaag ttttatcgta   13800
gggctatgca acttgtacct gatatagagt tcaagattac ttatacccgg tctccagatg   13860
gtgatggcgt tggaaacagc tagtgcgtat ataatttgat agatagtaat gcatagagtt   13920
tgttaaagtt aagcatcttt gccctgttga ctcttaagat ggtgctaatt ctgttgagct   13980
ctatactctt tagtatatct ttgtttataa agttgtagaa attttttaat tagggaaatt   14040
gcaagataac acatagaaat gcacctttta aacagataca aaaataaaca gatacaaaaa   14100
taaacagata caaaaaaacg gtttaaaaaa ataaaagcag tagttactga aaggagtaaa   14160
ttaaaggaca catttcaact ttctgaaacc tatttgaagt agaaagtttt aaaatgtaat   14220
taggctaaat ttggcaaaat attaataatg gttaaaattg agtgatgggt acatgggagt   14280
ttattacact agtttcctta cgtatatgtt tgaaattta cattttaaaa aaggcttcta   14340
attaggaaaa tgctgaacta taaaagatgt tattattctc ttaatgtttt tagtaaaaca   14400
ttaaaactct aacatttatt taaaagcaca ggtgcagaat atattcctaa aagaaatcat   14460
gtttgaattg tatagttgcc actgcatcaa agccatgaag tagcattggt tttatatgga   14520
taaagatcaa gaaaacttat ttttaaggca atactttgc aagacaatta taaaattgtt   14580
ttggcttaat tgcactatct cccaaaactc aatttgctga tattagaaga gaagggagtc   14640
tgtacccatg agagaatgtc aggttaaaaa tagacagtac agagaaaaaa gttttggtaa   14700
tgaaatatta tattagctat tatattaata tattccctct gtcatgaaat aattgtcacc   14760
tttattgata acatatgctt attgccaatg ttttttaact gcatatggta ttaacactta   14820
agctttggat aagtcatatt aaaaacattc ccaacaaggt caatattaat agcctgttta   14880
aattttcagc taataatatt gttcaccaaa ttagagttaa cagtatgagg tagttcatac   14940
ttaaaatgaa tcacttgggt tttttctaaa ccttctttaa atttgggtag agtcgtttag   15000
actcagctct tagccagttt tataaatatg tgccagatgc tgttaagaaa gattgtatta   15060
aaatattaaa gaggcatttc ttttctttcc catttttat acaaacccag acgctatgaa   15120
agttctttaa ggattcatct ttttttttta aataagatct gataagccct aaaagtttgc   15180
cttttttttt ctttcctgta acatgtttgt agaatagcca ttgagtccat ctagcctcaa   15240
ccacacttat attttgttgt attacaaaat gcccttcctg gtttttttttt ttgttttttt   15300
gtttttttta agtctacatc acttgaaact tcctggtttt ctaacttcgc cttcatccaa   15360
tcctctttgt aagtctgatc atctttaagg tttacttcag taaaaataga aagctcattt   15420
ttctagcacc attcactaca catttgtgta tactggtaga tgatttgtga accctaagat   15480
gttttcaaag taggtatttt cctctctaaa ggtaggctga taaggcaaat ctgttagaaa   15540
accttggta agtaagtacc tcagatgacg tctgtagatt tggttttat ccagttagaa   15600
taaattaagg ttaaagaaca tactacgtta agattttga aaccatttga aagcttgcag   15660
taactcataa aatctctact ttacaataaa attagttaaa tctcaacacc tgtatccaaa   15720
aattctaatt ctttctggat gataattact gaagcttttt tctttgaaaa acttgataca   15780
gtattccttt gcaagacagg ataaattcat cacatttaaa aatgtatcac atgttgaata   15840
agctttaggt gacttttgt aaagcaaatt tgaaaatgct atgaaaaatc agtttctaaa   15900
ctgtacgctt gtagactgag gcacttaatt tattcacctc ccttttttca gcattgaaga   15960
taatgatgat gacagcaaaa tggcagatct cttgtcctac ttccagcagc aactcacatt   16020
tcaggagtct gtgcttaaac tgtgtcagcc tgagcttgag agcagtcaga ttcacatatc   16080
aggtgtgaat acttgttttt cataactcag tgagaaatat cttaaccta aagatttcca   16140
aatttataag gtcagataat ttgccagata actgctgctt tagttcagaa tatggtggaa   16200
gatctagtta taattatcat ttgcatatac tattaagctg ttttgtgttt tgttttgtct   16260
tgttttgttt tttgaaatgg agacgtgccc tgtcacccag gctggagtgc agtggtgcaa   16320
tctcggctca ctgcaacctc tgcctcctgg gttcaagcaa ttctgctgcc tcagcctccc   16380
aagtggctgg gattacaggc gtgtgccacc acacccagct aaattttgt atcttcagta   16440
aagacagagt ttcaccatgt tggccaggct ggtctcgaac tcctgacttc atgatctgcc   16500
caccttggcc tcccaaagtg ctgggattac aggcctctga ggcactgcgc ccagcccagt   16560
```

6533

```
agtaagctgc tttacaatct gaagcagaac agtttgtagt gctgttgttt aaggatgcca   16620
tacctttttc agtaaagatc taacagggta agtctgagtt gttgaggtag ccctaagaaa   16680
actggaggaa tactggtatc atgaagcatt tcagccatgt tggacaattg tcctgagaca   16740
gactgaatgt ttaggaatta atggattttt gttcgggcat ggtggctcac gcctgcaatc   16800
tcagcatttt gggaggctga gttgggagga tcacttgagg ccaggagttc aagataagcc   16860
tggccaacat ggtgaaaccc cacctctact aaaaatacaa aaattagctg ggcgtcgtgg   16920
cgcatgactg tagtcccacc tacttgggag gctgaggcac gagaattact tgaacccagg   16980
aggcagaggc tgcagtgagc tgagattgta tcactgcact ccagcctggg caacagagca   17040
agaacctgtc acaaaaaaaa aagaaattca tgtattttta atatgttaaa tattgtttgg   17100
ttcggggctt tttcagagga ggacaattaa aagtttttcaa ggagatgaaa ataactttag   17160
tgttaataga tgcaatatgg atcacacaca catagattat tttcctaaaa catttatttt   17220
aatatgtctg gcaaaataat cttatgaggg aaaagagtgc tttataaaaa gtagcttcag   17280
atctatactg aaaaaacaaa gatatttatg tcttgatgtt aagaaccatt attattattg   17340
agtagctaaa tacattcatg ctttagctct gagcaataca gagggtgtga ttataaattt   17400
ctaggaaggt ataaatgtac tgggaatgta gttgtgacaa tagaatgaca tagaggagag   17460
tcactgaagg atgattttct tttgcagtgc tgccaatgga ggtcctgatg tacatcttcc   17520
gatgggtggt gtctagtgac ttggacctca gatcattgga gcagttgtcg ctggtgtgca   17580
gaggattcta catctgtgcc aggtactaag ttttgtttt tgtttttaa acaactgagg   17640
caatggtgaa aagaaagatg gtcctttgcc aatcctgata aaattacttg attggtgttc   17700
tgagttaaag cttagaataa acaagttttg ctaagctgta cttaactttc tcaaataact   17760
tagaatttaa aggctagaat atgctaggtt tctagggtat agaataatat gtaggacaga   17820
tgtagtaacc catactacta ccatagagtt tacatgctag cttaactgat ttgggaaaaa   17880
gagttatatt agaaaaatat attcaagtca tttttacact aactgtaaac tcattgtggt   17940
aatggtttag attaaaacag cactagcatt ttcttatggc tcattaaaag ttattctata   18000
ttttgaa                                                              18007


<210> 8835
<211> 8551
<212> DNA
<213> Homo sapiens

<400> 8835
gcgtcggcgc aggtttccgc agctgagggg gcagctccgc ggcggcgtcc ggggtctcca    60
gtagggctga cgctccggtg ctcgcacaat cccccgcctc ggctggcaac gggcgtccct   120
ccactccccg agtccccggc agccgccgcc accccagcgc gccccgatct ggccccctgc   180
cccgcgaaga tggctgccgt acgccgggcc cgcagttatt gccgctgcct ggtgcgcttc   240
tccgaccgag aactctgcta agctccgctg cagagacagg caggagtaga cacccggaca   300
cccagcaccc ctcctccggg gggcggtgca gaggggcac ggagagcccc tcgagcgcag   360
caggccgccc cgccagcatg gtaacctggc caggggctc gagggtggac gccgcggggc   420
gggagcgtgg tgtgcagagg ggccgggcct agggctgggg gtcggcgggg actctgggga   480
ggagtgggag cttcacggct gccacccgtt agagggccct ggcctgagaa ggagtgcgtc   540
ggggggcggg gggtgccaac cctggcttct ccccaggatt ccttcctgct gagcctcccc   600
aaccccccgcc gagctcgatg tgaggaggag ggtttgcagg acagccggggg aaaatgtccc   660
ttctcggctc actgagtata ttgaaccagt ctcggtcctc tcaagggatt ttatcagaag   720
cattgagcat agattgaggt aagctgtcac agcgcctgaa ttcgggaggg agctctggca   780
agaggagaca cttgttgatt gctcttctgc ggaaaagcca ggcccaccga caggccctgc   840
cggcaccttg aggagccctg ggtgtaggac gcatctgccc cgcgaggcgt cattccctgg   900
gaggatgttg gcaggcggtc ctggcggagt ggggttggag ggttcgtctc cgcggcgtcg   960
gtgccgtcca aatgagagac tgagctaagt tgcagagctt gacagtgcag attccatgag  1020
actgttccat attggaatac gtagtctctg ccctatgcct ttctttggtt tagaataaat  1080
tgttcatctg agaaactaat ctctggctgg ggcttaaaga atcaggatg caataattcc  1140
aaacgattta atttatagtg gactcaaata tttattgcat aaatgaatgg ctgaatttat  1200
ttttattaaa ttaatctgga ggatagaaaa ggcaattgcc cctgcccta aactttcaga  1260
agtagttctc tgaccgggat taagtactta gcctttataa tttattaatc gcacctgtga  1320
aacaggagta acatgatgaa gacatggact actcatacac atgagctatt caagtgaagg  1380
tgatatttag gtcaaactcg attatgaaaa ataaaaggaa aacctccagg tggcatctga  1440
ggccctactt atttcaagta gtagttgaat tgaccaaatg tcaactcagc cgatcccaga  1500
tataatagtt tgtttttgtg atcatactgt caaaatcaaa gtaagaatgg tttagagctc  1560
cactgtaaca caggggagaa gaaagatgct gtctatatta cacttctccc atttcctttc  1620
ctcatccttc agatacacat tatccagatg gcattttatt tgtcgattca gccaatattt  1680
```

6534

```
ttgagtacct attagcctgg catagtgtga gactctggta caatactaga tcttcaatat   1740
aaccaaacct gcaaggtgat ttatgataaa cttttaatca cagaatgtca catgaaaagg   1800
gacctcagta gatcaccata cctctttata gatgtcccat agacatgaca gctgaggcct   1860
agacaggcct ttactacaaa tcaagcaatg tgtttgacct tatggttaca gaggtaactg   1920
agatgtgttc ctgtcctgga tgccttaaat ctagtaaatg aaacagccaa cctcagtaca   1980
aatgttgtga taaaagtaag cacaagtgtt atgggaacac aaaaatgttg aaaaatgctt   2040
ctgactaaga tgaaccctga gctgaatctt gaagaatgag tagaaatagc taagtgagga   2100
agaaggcatt ccagatagag caagcagcgt atgcaagcca actggacaga gcaggggaag   2160
ctcttgaagt cagtttagaa tgactgctag gcaagagtta gaaaactaaa ttacaaagga   2220
tacccccacag aactcaggtc ccctcgcatt acctgtactt agagtttgca ataataaagc   2280
agactcttga gaagagagag aaatacactt ctcagtggga tttatacgct cagtctttca   2340
ttacatattt tcctactaat ggtgttctta gtaggaaaag ctcccaactt aaagaaacta   2400
aaaaataatg tatttgacaa tacattaatc cttaaatttt ccattttct agaaattcat   2460
ctgagttctt gatctcattt atttcttcac agatgtgtgc tttacagtgt gcccagcatt   2520
ttaccatata ctaactggtt caagtctgaa aggcacctct gctttgagtc tgcttgccag   2580
agataagata ggaggcaagg ctaatttatg ttctgtaata tagtgcaagt atatctggta   2640
gctgtgttaa agatgtgtgt taatataaac attaccctcc cccccggcc gccctgaaat   2700
aacatatgac taaaatttgc aattgtaaaa cttaccatct ttggaaccag taaaattaaa   2760
tgggtttttat tattatctag cttaccttga aggccatttc cctgattgcc acatttcttt   2820
acagtaagtg ttgagcaagt ttcatttcct aataaatcta ttagctaaca gactgaactg   2880
aggcaacatg ccattttcac tggaaggtag gatttagttt aatttagcaa acatttattg   2940
agaataaaag gataaaatta aagtcatctg attgaaacct ttattaggct ccaagtcaca   3000
cacagtaatt ccagtctagc tttattccac tgaagccgat ccaatatata aaaattggat   3060
ttatagacag ataaaataga aggggtttct ttacaaaagc atttactatt aaaagtcttt   3120
gactaagctt tcctagtaca tataaaatac acagaagtca tattttcata gaacacattt   3180
aataacatgc tagctgtata aagaagtga catcatctta cggaatatat atatatatat   3240
gtgtttttt ttttttttt gagacagggt ctctctctgt ctcctgggtt ggagagcagt   3300
ggtgcagtct cggctcactg caacctgcat ctcccaggct caagcaatcc tctcacctca   3360
gcctcccgag tagctggggc tactgtgtac caccacccc tggtaatttt tgtatttttt   3420
gtagagacgg ggtcttgcca tgttgcccag ccttgtctca aactcctggg ctcaagcagt   3480
ccttccacct cagccttcca aagtgttggg attacaggca tgagccacca cacctgcct   3540
ggactgtatt ctcttaagtg atccatgaag caaaaactat ctgctacagc caggtatggc   3600
tgcacaagcc tgtagtctca gctactcaag aggtggagca gaaggatctt tggagctcag   3660
gagtttgagg ccatcctggg ctgcataagg agactctgtc ccaagaaagc aataactatt   3720
tgctgaactc cataggacaa ctaaatgtta ctattttctg aaacaaagtt gttattttta   3780
gccacctaac aatacatttt aacctagaac ccagtggatt tgtttattct acagtatcaa   3840
aaaaaattca agtatcaagt tatatctgat tggtatcatt aaacttacct gtgaagaaga   3900
taactataaa gaagcaatgt tgtatttcat taacatgaaa cattagagta ttttctgttt   3960
tgggacttgt agaagtttat ggacactaaa attatttggg ctttttgcct tagactcaat   4020
tatgtttgga acatctgtca cagcaccttg tcaactgcat tctagaacat ttctcctcct   4080
gatggaaaat acaacatgac ctatgaggca gtcttgcaaa agaaaaaga aatagcagaa   4140
tctaatctag cctttcaaga tcctgccaca atttatagga aataagagta agaggtcaaa   4200
ggaacatatt tattgacacc tcagcaaaat ctagcttcta cagaaaaacg acccagtttc   4260
atcccaaata aattacaaga aaaaagagtg aggattacaa aagacttgag acatatcaag   4320
caattacaat gtggacttta tttgaatctt gatttcacaa actgtgaaat atatgtattt   4380
tacatatgac atcttgagaa atatgaatac tgtgacttga tatttgatct aaggaattac   4440
attgataatt attgaagttg ggtcatgagt acttagggat taattctctt taagtgtttt   4500
tctcataaaa agtttttaaag tcttgtagaa ctaaaaaaat accaaagatg ttctaatttt   4560
atttcatttt tttctaagaa gaataatatt tttctttct tttttccttt ttttttttt   4620
ttttttttt tatgatgggg tctctgtcat ccaggctgga gtgcaatggc gcagtctcgg   4680
ctcactgcaa cctccatctc tcaggctcaa gcaaccctcc cacctcagcc tcccaattag   4740
ctgggaccac aggcgtgtac caccacgcct ggctgatttt ttgtattttt agtagagatg   4800
gggtttcact atgttggcta ggctggtctt gaactcctga cctcaagtga tgctcctgcc   4860
tcagcctcac aaagtgtggg gattacaggt gtgagccacc gcacctggcc agaaaaagag   4920
aaaataattt ttattataga ttatcagtag ttatgtatat taatgaagaa tttggcttca   4980
tttacctaat tagattaatc ataaatcatt tatgaatagt aatagacttg aattgttact   5040
ttatattaca cagttggccc tctgtacctg caggttctgc atcctgggat tcaactgtgg   5100
atcaaaaata tttggggggaa aaaagcaat acaacaataa aaaataatac aaattaggaa   5160
aaatatacta caagaactat ttacatggca tttacattat aagtaaccta gagatgactt   5220
aaagtatatg agaagatgtg cataggttat atgcaaatat gccatatgag ggactggaaa   5280
acccagggat tttggtgtcc tgggggctcc tggaactaat cacctgtgga tactgaggga   5340
```

                                        6535

```
caactgtaat taaattgatt tttggatgga tgcaactgat gttaaatttg gcggggggga  5400
aatgttagga ttcacaataa cgtgagtact gtgggttgga gtagagaata tgctttttcag 5460
actcattttc ctttggaaat taatagtaag gtctcaagtg cccccctacag ccttgctact  5520
caaagtgggt tccacaaagt gttgacagta tggtactaaa tagaaagtgg ttgaatgaga  5580
aatgtagatt gcagagggca actggtgtgt ttatatgcct gacattattt gggtttttccc 5640
ccctcaggca gaagctgagg aagattgtca ttctgatact gtcagagcag atgatgatga  5700
agaaaatgaa agtcctgctg aaacagatct gcaggcatgt ttcttcaatt gtgtctttga  5760
tttttattcc attgttccca tacatatgca gaaattgatc ataatcatgg gtatttgtag  5820
gttattactg tttgcatgga atttaactgt ttccatactg gtttatagaa tacttaaaac  5880
tatgttatgg ctttcttttgt gaaaagaaat atcaataatg gttgcttgta gtttaacatg  5940
ggtttaaagt attcaaacta aggcttacgc atgactcaaa acccataatc ttaaaaagat  6000
tgatgggttt gaccacctaa aagtttaaaa cctgtgtata agaaaaggca tcataaataa  6060
agttaagaga aatagccagc tggaaaaact gtttattata tatgggcaga ggattcatct  6120
cattacatag agcactcata tatttggaag aacagaggat aaaaagatat gagtggactg  6180
ttaatggcaa aataatacaa atggccatta aatatttgaa gagataatta gcctcattaa  6240
taatttaatc agattggtga ataatgtgca tcgctgtcca agctgtgaga acactcatgc  6300
agtgtacatg aaaatgtaaa ttggtacagc tttctggagg gcagactggt gatatggatc  6360
aaaatgaaaa acatgcattc ccttgataca gcaattctac ttccaggaaa ttaattttaa  6420
ggaaatagtg gggaaagtaa atatgcaact ataaagatgt ttagtatagc attgtttatc  6480
tggaaaaaca tcatacaact taaatattca ttacctgtta ttaagtaatg atgcatccat  6540
acagtgaaaa cactacagcc atttaaaagg atgaagtaaa tctttataca ttaaaagaga  6600
aaaaagttg ctgtaactag ttaagtgtgt ctcactgcac ttgtaaggtt aataataatt  6660
atttggaaca gctcatctag tagacattga atgctgctaa agattctgca ggtcagagat  6720
ctatgtgtaa caggttaaaa gcgtagcaac aaagcagtgt acagaatata gagaaaaatt  6780
aatttaaaac attctagata cgtctttttta aaaaaaaaaa aaaggaagcc aggaataaca  6840
tatgcatccc tgttagcaat ggctgccttt gggcagaacg tgtaacccag tttgggttcc  6900
ccaggaagca gactaggtga agattgctgt gcaggaagtt tattaaggag tattcttggg  6960
atcaacacct atggaaggga gagagggaaa caaatgggca gggagaagac cagctgcaat  7020
gcagtcttaa tggactgctt agccatcctc gagggagttc tgaagatgaa atacccttttc 7080
agagatgacc tgagttgcaa agagccaaga ctttattagc cgttgatcag tcattgggtg  7140
gggattgaga ggacagtgtg attttgctga ggcaataccc aaaagggctg acaactcaag  7200
tgttttcaga tagaactctc agcagtttgg gtaacaagtt ctttatttct gaaagggaat  7260
ctgggcaaca caccagagtc taccttatag ggttcacttt ttatgtgctt ttaatttttt  7320
tttttttttga gatggagtct cgctccattg cccaggctgg agtgcagtag cacgatctct  7380
gctgactgcc aacctctgcc acccgagttc aagcaattct catggctcag cctcccaagt  7440
agctgggatt acaggtgccc gccaccacac ctggctaatt tgtttgtatt tttagtagag  7500
acagggtttc accatgttgg ccgggctgtt ctcgaactcc tgacctcagg tgatccgtct  7560
gcctcggcct cccaaagtgc tgggattata ggcatgagcc tctgtgcctg gcctttacat  7620
ttttgaaata acaaatattt gaaaaaacat tttcttttttg aaatacagaa tgttaataga  7680
ttttgggctt acctacagaa tttttggcag cattcttaat gtctactaga tgatatagtc  7740
attaaaaaat tattggaagc ttataacttc agtctgtaag tgatggctta tattttcaat  7800
tctaattaaa atttggtttt ccaatataat ttgacttttg gtgtactgac atgtatttta  7860
tgctaatttt cttgattctt taagttttga gcagaaaatt attttaaaag atgtatttaa  7920
tggatattta ataattcaga agacagtgat ttctggactt agagtaataa gtatatacgt  7980
ggaagtagat agatgttgga catattgata cattgttcca gagttgagct acccttcctt  8040
gatgagtcct aaaatgctgt tctccccata ggcacaactc cagatgttcc gagctcagtg  8100
gatgtttgaa cttgctccag gtgtaagctc tagcaattta gaaaatcgac cttgcagagc  8160
agcaagaggc tctctccaga aaacatcggc agataccaaa ggaaaacaag aacaggcaaa  8220
agaagaaaag ttaagtatta tagatattgt aacaaattac attttttttt tttggcacat  8280
ggaaattttc actgacacag taagtaggca ttataaccag actttcggga cataaacaca  8340
tatcttgtaa aataaaaatt ttgactagta tactagttta tatatttctc acaatttctt  8400
ctaggtactt tggatggtac cactactcct gcatggcttt tttctctgtg ggtacactgt  8460
cttcattgag ctgtcttttg ttaatttata gacctctggg attcatgtgg ttcctaaaag  8520
attggtgtct ctgaatttat taacagaacc a                                 8551
```

<400> 8836
```
tcaaaaactt tagtcgttat aacaactgtg actgttgaga aatttcactg ttttcctgca     60
ttcctggcgc gggactctag ccagaggctc cgaggacttt gtagcgactg tcccaagcgt    120
ccagttcgat gcttctcagg gcggcttgct ttaagggccc acccctaaat ttgggttgta    180
aaaatttttg aggtaatgct tgttcaagtt cgcttaagtg ttcactcagc ccaacacgcg    240
ggttgggctt gaggttcggc acccgggcag cctcaccccc cgcgtcaggc gcgcgcacac    300
agtaggtccg cgacccttag ccctccacta ggcagcccgc ggggatgggt ggccgggccg    360
cccacacggg cagcaccggc actgcgcatg ctcggcgcgt cggcgcaggt ttccgcagct    420
gaggggggcag ctccgcggcg gcgtccgggg tctccagtag ggctgacgct ccggtgctcg    480
cacaatcccc cgcctcggct ggcaacgggc gtccctccac tccccgagtc cccggcagcc   ·540
gccgccaccc cagcgcgccc cgatctggcc ccctgccccg cgaagatggc tgccgtacgc    600
cgggcccgca gttattgccg ctgcctggtg cgcttctccg accgagaact ctgctaagct    660
ccgctgcaga gacaggcagg agtagacacc cggacaccca gcacccctcc tccggggggc    720
ggtgcagagg gggcacggag agccctcga gcgcagcagg ccgccccgcc agcatggtaa    780
cctggccagg gggctcgagg gtggacgccg cggggcggga gcgtggtgtg cagaggggcc    840
gggcctaggg ctgggggtcg gcggggactc tggggaggag tgggagcttc acggctgcca   ·900
cccgttagag ggccctggcc tgagaaggag tgcgtcgggg ggcggggggt gccaaccctg    960
gcttctcccc aggattcctt cctgctgagc ctccccaacc cccgccgagc tcgatgtgag   1020
gaggagggtt tgcaggacag ccggggaaaa tgtcccttct cggctcactg agtatattga   1080
accagtctcg gtcctctcaa gggatttat cagaagcatt gagcatagat tgaggtaagc   1140
tgtcacagcg cctgaattcg ggagggagct ctggcaagag gagacacttg ttgattgctc   1200
ttctgcggaa aagccaggcc caccgacagg ccctgccggc accttgagga gccctgggtg   1260
taggacgcat ctgccccgcg aggcgtcatt ccctgggagg atgttggcag gcggtcctgg   1320
cggagtgggg ttggagggtt cgtctccgcg gcgtcggtgc cgtccaaatg agagactgag   1380
ctaagttgca gagcttgaca gtgcagattc catgagactg ttccatattg gaatacgtag   1440
tctctgccct atgcctttct ttggtttaga ataaattgtt catctgagaa actaatctct   1500
ggctggggct taaagaatca gggatgcaat aattccaaac gatttaattt atagtggact   1560
caaatattta ttgcataaat gaatggctga atttattttt attaaattaa tctggaggat   1620
agaaaaggca attgcccctg cccctaaact ttcagaagta gttctctgac cgggattaag   1680
tacttagcct ttataattta ttaatcgcac ctgtgaaaca ggagtaacat gatgaagaca   1740
tggactactc atacacatga gctattcaag tgaaggtgat atttaggtca aactcgatta   1800
tgaaaaataa aaggaaaacc tccaggtggc atctgaggcc ctacttattt caagtagtag   1860
ttgaattgac caaatgtcaa ctcagccgat cccagatata atagtttgtt tttgtgatca   1920
tactgtcaaa atcaaagtaa gaatggttta gagctccact gtaacacagg ggagaagaaa   1980
gatgctgtct atattacact tctcccattt cctttcctca tccttcagat acacattatc   2040
cagatggcat tttatttgtc gattcagcca atatttttga gtacctatta gcctggcata   2100
gtgtgagact ctggtacaat actagatctt caatataacc aaacctgcaa ggtgatttat   2160
gataaacttt taatcacaga atgtcacatg aaaagggacc tcagtagatc accatacctc   2220
tttatagatg tcccatagac atgacagctg aggcctagac aggcctttac tacaaatcaa   2280
gcaatgtgtt tgaccttatg gttacagagg taactgagat gtgttcctgt cctggatgcc   2340
ttaaatctag taaatgaaac agccaacctc agtacaaatg ttgtgataaa agtaagcaca   2400
agtgttatgg gaacacaaaa atgttgaaaa atgcttctga ctaagatgaa ccctgagctg   2460
aatcttgaag aatgagtaga aatagctaag tgaggaagaa ggcattccag atagagcaag   2520
cagcgtatgc aagccaactg gacagagcag gggaagctct tgaagtcagt ttagaatgac   2580
tgctaggaaa gagttagaaa actaaattac aaaggatacc ccacagaact caggtcccct   2640
cgcattacct gtacttagag tttgcaataa taaagcagac tcttgagaag agagagaaat   2700
acacttctca gtgggattta tacgctcagt ctttcattac atattttcct actaatggtg   2760
ttcttagtag gaaaagctcc caacttaaag aaactaaaaa ataatgtatt tgacaataca   2820
ttaatcctta aattttccat ttttctagaa attcatctga gttcttgatc tcatttattt   2880
cttcacagat gtgtgcttta cagtgtgccc agcattttac catatactaa ctggttcaag   2940
tctgaaaggc acctctgctt tgagtctgct tgccagagat aagataggag gcaaggctaa   3000
tttatgttct gtaatatagt gcaagtatat ctggtagctg tgttaaagat gtgtgttaat   3060
ataaacatta ccctcccccc ccggccgccc tgaaataaca tatgactaaa atttgcaatt   3120
gtaaaactta ccatctttgg aaccagtaaa attaaatggg ttttattatt atctagctta   3180
ccttgaaggc catttccctg attgccacat ttctttacag taagtgttga gcaagtttca   3240
tttcctaata aatctattag ctaacagact gaactgaggc aacatgccat tttcactgga   3300
aggtaggatt tagtttaatt tagcaaacat ttattgagaa taaaaggata aaattaaagt   3360
catctgattg aaacctttat taggctccaa gtcacacaca gtaattccag tctagcttta   3420
ttccactgaa gccgatccaa tatataaaaa ttggatttat agacagataa aatagaaggg   3480
gtttctttac aaaagcattt actattaaaa gtctttgact aagctttcct agtacatata   3540
aaatacacag aagtcatatt ttcatagaac acatttaata acatgctagc tgtataaaag   3600
```

                                6537

```
aagtgacatc atcttacgga atatatatat atatatatgt gttttttttt tttttttga    3660
gacagggtct ctctctgtct cctgggttgg agagcagtgg tgcagtctcg gctcactgca    3720
acctgcatct cccaggctca agcaatcctc tcacctcagc ctcccgagta gctggggcta    3780
ctgtgtacca ccaccccctg gtaattttg tattttttgt agagacgggg tcttgccatg    3840
ttgcccagcc ttgtctcaaa ctcctgggct caagcagtcc ttccacctca gccttccaaa    3900
gtgttgggat tacaggcatg agccaccaca ccctgcctgg actgtattct cttaagtgat    3960
ccatgaagca aaaactatct gctacagcca ggtatggctg cacaagcctg tagtctcagc    4020
tactcaagag gtggagcaga aggatctttg gagctcagga gtttgaggcc atcctgggct    4080
gcataaggag actctgtccc aagaaagcaa taactatttg ctgaactcca taggacaact    4140
aaatgttact attttctgaa acaaagttgt tatttttagc cacctaacaa tacattttaa    4200
cctagaaccc agtggatttg tttattctac agtatcaaaa aaaattcaag tatcaagtta    4260
tatctgattg gtatcattaa acttacctgt gaagaagata actataaaga agcaatgttg    4320
tatttcatta acatgaaaca ttagagtatt ttctgttttg ggacttgtag aagtttatgg    4380
acactaaaat tatttgggct ttttgcctta gactcaatta tgtttggaac atctgtcaca    4440
gcaccttgtc aactgcattc tagaacattt ctcctcctga tggaaaatac aacatgacct    4500
atgaggcagt cttgcaaaag aaaaagaaa tagcagaatc taatctagcc tttcaagatc    4560
ctgccacaat ttataggaaa taagagtaag aggtcaaagg aacatattta ttgacacctc    4620
agcaaaatct agcttctaca gaaaaacgac ccagtttcat cccaaataaa ttacaagaaa    4680
aaagagtgag gattacaaaa gacttgagac atatcaagca attacaatgt ggactttatt    4740
tgaatcttga tttcacaaac tgtgaaatat atgtatttta catatgacat cttgagaaat    4800
atgaatactg tgacttgata tttgatctaa ggaattacat tgataattat tgaagttggg    4860
tcatgagtac ttagggatta attctctta agtgtttttc tcataaaaag ttttaaagtc    4920
ttgtagaact aaaaaaatac caaagatgtt ctaattttat ttcatttttt tctaagaaga    4980
ataatatttt tcttttcttt tttccttttt tttttttttt tttttttat gatggggtct    5040
ctgtcatcca ggctggagtg caatggcgca gtctcggctc actgcaacct ccatctctca    5100
ggctcaagca accctcccac ctcagcctcc caattagctg ggaccacagg cgtgtaccac    5160
cacgcctggc tgattttttg tattttagt agagatgggg tttcactatg ttggctaggc    5220
tggtcttgaa ctcctgacct caagtgatgc tcctgcctca gcctcacaaa gtgtggggat    5280
tacaggtgtg agccaccgca cctggccaga aaaagagaaa ataattttta ttatagatta    5340
tcagtagtta tgtatattaa tgaagaattt ggcttcattt acctaattag attaatcata    5400
aatcatttat gaatagtaat agacttgaat tgttacttta tattacacag ttggccctct    5460
gtacctgcag gttctgcatc ctgggattca actgtggatc aaaaatattt gggggaaaaa    5520
aagcaataca acaataaaaa ataatacaaa ttaggaaaaa tatactacaa gaactatta    5580
catggcattt acattataag taacctagag atgacttaaa gtatatgaga agatgtgcat    5640
aggttatatg caaatatgcc atatgaggga ctggaaaacc cagggatttt ggtgtcctgg    5700
gggctcctgg aactaatcac ctgtggatac tgagggacaa ctgtaattaa attgattttt    5760
ggatggatgc aactgatgtt aaatttggcg ggggggaaat gttaggattc acaataacgt    5820
gagtactgtg ggttggagta gagaatatgc ttttcagact cattttcctt tggaaattaa    5880
tagtaaggtc tcaagtgccc cctacagcct tgctactcaa agtgggttcc acaaagtgtt    5940
gacagtatgg tactaaatag aaagtggctg aatgagaaat gtagattgca gagggcaact    6000
ggtgtgtta tatgcctgac attatttggg ttttcccccc tcaggcagaa gctgaggaag    6060
attgtcattc tgatactgtc agagcagatg atgatgaaga aaatgaaagt cctgctgaaa    6120
cagatctgca ggcatgtttc ttcaattgtg tctttgattt ttattccatt gttcccatac    6180
atatgcagaa attgatcata atcatgggta tttgtaggtt attactgttt gcatggaatt    6240
taactgtttc catactggtt tatagaatac ttaaaactat gttatggctt tctttgtgaa    6300
aagaaatatc aataatggtt gcttgtagtt aacatgggt ttaaagtatt caaactaagg    6360
cttacgcatg actcaaaacc cataatctta aaaagattga tgggtttgac cacctaaaag    6420
tttaaaacct gtgtataaga aaaggcatca taaataaagt taagagaaat agccagctgg    6480
aaaaactgtt tattatatat gggcagagga ttcatctcat tacatagagc actcatatat    6540
ttggaagaac agaggataaa aagatatgag tggactgtta atggcaaaat aatacaaatg    6600
gccattaaat atttgaagag ataattagcc tcattaataa tttaatcaga ttggtgaata    6660
atgtgcatcg ctgtccaagc tgtgagaaca ctcatgcagt gtacatgaaa atgtaaattg    6720
gtacagcttt ctggagggca gactggtgat atggatcaaa atgaaaaaca tgcattccct    6780
tgatacagca attctacttc caggaaatta attttaagga aatagtgggg aaagtaaata    6840
tgcaactata aagatgttta gtatagcatt gtttatctgg aaaaacatca tacaacttaa    6900
atattcatta cctgttatta agtaatgatg catccataca gtgaaaacac tacagccatt    6960
taaaaggatg aagtaaatct ttatacatta aaagagaaaa aaagttgctg taactagtta    7020
agtgtgtctc actgcacttg taaggttaat aataattatt tggaacagct catctagtag    7080
acattgaatg ctgctaaaga ttctgcaggt cagagatcta tgtgtaacag gttaaaagcg    7140
tagcaacaaa gcagtgtaca gaatatagag aaaaattaat ttaaaacatt ctagatacgt    7200
ctttttaaa aaaaaaaaa ggaagccagg aataacatat gcatccctgt tagcaatggc    7260
```

6538

```
tgcctttggg cagaacgtgt aacccagttt gggttcccca ggaagcagac taggtgaaga  7320
ttgctgtgca ggaagtttat taaggagtat tcttgggatc aacacctatg gaagggagag  7380
agggaaacaa atgggcaggg agaagaccag ctgcaatgca gtcttaatgg actgcttagc  7440
catcctcgag ggagttctga agatgaaata ccctttcaga gatgacctga gttgcaaaga  7500
gccaagactt tattagccgt tgatcagtca ttgggtgggg attgagagga cagtgtgatt  7560
ttgctgaggc aatacccaaa agggctgaca actcaagtgt tttcagatag aactctcagc  7620
agtttgggta acaagttctt tatttctgaa agggaatctg ggcaacacac cagagtctac  7680
cttatagggt tcactttta tgtgctttta attttttttt tttttgagat ggagtctcgc  7740
tccattgccc aggctggagt gcagtagcac gatctctgct gactgccaac ctctgccacc  7800
cgagttcaag caattctcat ggctcagcct cccaagtagc tgggattaca ggtgcccgcc  7860
accacacctg gctaatttgt ttgtattttt agtagagaca gggtttcacc atgttggccg  7920
ggctgttctc gaactcctga cctcaggtga tccgtctgcc tcggcctccc aaagtgctgg  7980
gattataggc atgagcctct gtgcctggcc tttacatttt tgaaataaca aatatttgaa  8040
aaaacatttt cttttgaaa tacagaatgt taatagattt tgggcttacc tacagaattt  8100
ttggcagcat tcttaatgtc tactagatga tatagtcatt aaaaaattat tggaagctta  8160
taacttcagt ctgtaagtga tggcttatat tttcaattct aattaaaatt tggttttcca  8220
atataatttg acttttggtg tactgacatg tattttatgc taattttctt gattcttta  8280
gttttgagca gaaaattatt ttaaaagatg tatttaatgg atatttaata attcagaaga  8340
cagtgatttc tggacttaga gtaataagta tatacgtgga agtagataga tgttggacat  8400
attgatacat tgttccagag ttgagctacc cttccttgat gagtcctaaa atgctgttct  8460
ccccataggc acaactccag atgttccgag ctcagtggat gtttgaactt gctccaggtg  8520
taagctctag caatttagaa aatcgacctt gcagagcagc aagaggctct ctccagaaaa  8580
catcggcaga taccaaagga aaacaagaac aggcaaaaga agaaaagtta agtattatag  8640
atattgtaac aaattacatt ttttttttt ggcacatgga aattttcact gacacagtaa  8700
gtaggcatta taaccagact ttcgggacat aaacacatat cttgtaaaat aaaaatttg  8760
actagtatac tagtttatat atttctcaca atttcttcta ggtactttgg atggtaccac  8820
tactcctgca tggctttttt ctctgtgggt acactgtctt cattgagctg tcttttgtta  8880
atttatagac ctctgggatt catgtggttc ctaaaagatt ggtgtctctg aatttattaa  8940
cagaaccaaa aagaaaaaac agaatttct aaatttatta atagaaccaa aaagattgct  9000
cacatgttaa tgtctttcca gaggtcttaa tttcatgcag tattttgtta tattttgaat  9060
tgatcagctt acaataatgc attaatcatt tccttattct ggaaaatttt gaaatatttt  9120
cacactgaaa atatttttgaa tgctgtctaa cattcatatc tcttctggta cttactcaca  9180
cagagtaggc acagcatacc atttcatttc ttattcttcc atagaggctg ccatcttttt  9240
accatcagat ccaagttgt gtttataatt agtcatcaaa taattggcat taccatgatg  9300
acttaccttc tatctcctct taattttat tttgaaataa ttacaggtcc acaggtatag  9360
ggaagtcctg tgtgcccttt aacctcctcc gatggtaaca acttgcataa ctatagtaca  9420
atatcaaaaa cgaggaaata gacattggaa caatccacag tttacttgga tttcctgagt  9480
ttacaagcac ttgtctgtgt gtatgtgtat aaatagttgt ttgcagtttt attacaaggt  9540
agcttcatgt aaccaccacc acaatcaaga tacagaactg ttttatagtt atatactccc  9600
tttccctagc cattcgtaac cactggcaac cactagtctg ttctccattt tgtaattttg  9660
atattccaag aatgttgtat aagtggaatc atccagtatg taacctttg agattggctt  9720
ttttcactaa gtataattcc ctcaagatca gtccaagtta ctatgtatca gtagtttgtt  9780
cctttttatt gcagaatagt attgcatggt atggatgtac cccagtttaa ccatttattg  9840
gttgaaggac atttgagttg tttccaatat ttggctgtta tgaatggagc tatggaaata  9900
tgtgtgtagg ttttctcatg aacataattt tcacttctct gggatgaaac cccaagagta  9960
caattgctaa gttctatagt aagtacatgt ttgatttaa aagaaactgc caaagtgttt  10020
tctagagtat cttatattaa gttcccacca gcaatgtatg agtgatccag ttcatcctca  10080
tcagcattta gtgttgctac tttttaattt aatttaatta atttatttat ttattttaag  10140
acagagtctc acttgtcgc ccaggctgga gtgcagtggt gtgattccag ctcactgcaa  10200
cctctgcctc ccgggttcaa gcgattctcg tgccttggcc tcccaaatag ctgggattac  10260
aggccccgtc agtaacgctg ggctaatttt tgtattttta caaatttgta ttttgtatct  10320
agaatgcaaa aagaacttcc aaaacacaat attaaaaata ttagcaatct agctgggtgc  10380
ggtggctcac ttctgtaatc ccagcacttt gggagctgg ggtttcacca tgttggtcag  10440
gcttgtctcg aactcctgac ctcaagcagt ctacctgctt cagcctccca aagtgctggg  10500
attacaggag tgagccactg cacctggcct ttaatttat taatagccat tctgataggt  10560
atgtagtggt atctcattgt cattttaatt tgcatttctc taatggcttg tgatgttgaa  10620
catcttttca tgtgcttatt tttcatctat taatatatat tctctctctc aaatatctgt  10680
tgatgtcttt tctaattgga ttacatatat atatataatt ttttttttt ttttttttt  10740
tttttgagat ggagtgtcac tgtgtcaccc caggctggag tgctgtggca cgatctcagc  10800
tcacagcaag ctctgcctcc caggttcaac tgattctcct gcctcagcct ccagagtagc  10860
tgagactgta gacgtgtgcc accacaaccg gctaattttt gtatttttag tacagatggg  10920
```

6539

```
gtttcatctt gttggccagg ccagtgtcga actcctggcc tcaggtgatc tgccgacctc 10980
agcctcccaa agtgctggga ttacaggcgt gagccaccgc gcccagccag atgctaatat 11040
ttttgatgtt gtgttttgga agttctttat tctagatgca agtcttttat tgaatatgtg 11100
gcttgtaaat attttcatcc tcttaacagg gcatttcaca gagcaaaaat ttttaatttt 11160
gacaaggtcc agtttatcag ttttttcctt tgtgaatggt gctttggtg tcaagaactc 11220
tttgcctagt cctaggtctc caagatttttc tttgtttttct tttcttctaa aaggtttatg 11280
gattttacat ttaagtccat gatccagtca agttaatttt tatgtaaagt atgaggttta 11340
ggtcaaggtt cattaatttg cctatgaata tccagttatt ttgcacaatt tattaaaaag 11400
gctctccttc tgccatccat actaattttt aatgcaggtt ttcaaaaatt tttactttat 11460
attttttatag gctcgagaac tcttcctaaa agcagtagaa gaagaacaaa atggagctct 11520
ctatgaaggt aaaaattcag agcccaggtt catatcataa catttctgaa taatgactct 11580
gttattaacc atatttttt ttctataact tatttggtat agaacatcac ttttcttaat 11640
acattcttcc ttcagtactc attggaaatt ggttccagga cccttgtag ataccaaaat 11700
gctcaagtcc tttatatgaa tggtgtaata tttacatata acttacttat tatgtaaata 11760
gttattatac tgtatttttt tttaatttgt atttatttta aatatttttg atctgtagtt 11820
ggttgaatca gagaatgtga aacccatgaa tacagagggc cagctatatt tgaaattgtt 11880
ttttaaaaaa taaaaaatag aaattgtttt tctatataac ctgtcttttt gcaaaaaaat 11940
attgctggga aacatcatca tgttggtagg atgagcaaaa taacttttt ttacatttag 12000
ctttagttat tcttcattaa taaagtattt aaaaattatt cattttaaaa tatgctcttt 12060
ttataggtga aaattgcttc agaggatggg aatataaagg ataaattgag gaaaaaatac 12120
atgttttct ttctaagttc caatttacat attaccaaca gaaatatgtg gtaatggccg 12180
ggcgcggtgg ctcacgcctg taatcccagc actttgggag gccgaggcgg gcggatcacg 12240
aggtcaggag atcgagacca tcccggctaa aacggtgaaa ccccgtctct actaaaaata 12300
caaaaaatta gccggcgtag tggcgggcgc ctgtagtccc agctacttgg gaggctgagg 12360
caggagaatg gcgtgaaccc aggaggcgga gcttgcagtg agccgagatc ccgccactgc 12420
actccagcct gggcgacaga gcgagactcc gtctcaaaaa aaaaaaaaa aaaaaaaaa 12480
aagaaatatg tggtaatata tgtgtcagct ttgtgtcttt tattaaccca atagaaatgt 12540
gtaaataaag tgataggact atttgccata ttaggtttgt aattatgctt tccttttgtg 12600
atagtaaaga taataattga tgcataggaa aaatccttgt gcttgaatcg tttgaaaatg 12660
ccccaaaact aacatcattc agagttactg catttatatg caagtttctt ctagtgatat 12720
ttttcttag atttttagaa aggcccagtt gatcaagtcc ctgtgcagcc ttcattggtt 12780
tgtgaaattc gcatctccac ttagtgtatg gtgtaattca tccagaataa tagaacatgg 12840
cagaatatat tgaatcataa actcctttgt agggaaaaag aactagtcag cctctacagc 12900
tccaagttct actggtgtat ctctgtgggg agagttattg aatattacag ctctaaacta 12960
cctgtctagg aaatttgtaa aaaataagtt ttgaagatta cttaggtaaa taagaggcag 13020
ctgggctaaa agaagttaaa tttaaaggat aatttaaaaa caaaacaaa aactattctt 13080
tattccaccc agtaggaagc atttaatttt cctcaactct gtgtcttaga aaagtttgct 13140
tagaagtgtt tttggccagg catggtagct gacacctcta atctcagcac tttggcaggc 13200
tgaggcggga ggatcgcttg aacccaggag ttcaagacca gcctgggcaa tatagcaaga 13260
tgttgtctct acaaaaaatt taaaaattag ctgagtgtgc tggctggggc atgcctgtag 13320
ccccagctac tcaggagact gaggtgggag aatcacttgg acctgggagg tggagtctgc 13380
agtgagccaa gatcgtgcca actgcactcc aacctggaca acagagtgag accttgtctt 13440
aaaaaagaga gaagtatttt tgttggctat agcaattgca tcttcagagc ccaaagaaag 13500
acaactattt aaaaatcatg atacgtaaga gggtgaggaa aaatatggga agggctaata 13560
tataagagta aaatacaaca tcttaagttt agggaaaagt ttctttctga gcattaaggt 13620
ttggaaatag tttttgtgtca ctgaactgct gttgcatgta gaaaacaga atttggccgt 13680
ttgtaaagaa agttaccaaa ttaaaccaca gttaagggta atcaaaggaa atgacaaaaa 13740
tgtgtggtca cagctaattt agctttattt cttctttag ccatcaagtt ttatcgtagg 13800
gctatgcaac ttgtacctga tatagagttc aagattactt atacccggtc tccagatggt 13860
gatggcgttg gaaacagcta gtgcgtatat aatttgatag atagtaatgc atagagtttg 13920
ttaaagttaa gcatctttgc cctgttgact cttaagatgg tgctaattct gttgagctct 13980
atactcttta gtatatcttt gtttataaag ttgtagaaat tttttattag ggaaattgca 14040
agataacaca tagaaatgca cctttaaac agatacaaaa ataaacagat acaaaaataa 14100
acagatacaa aaaacggtt taaaaaaata aaagcagtag ttactgaaag gagtaaatta 14160
aaggacacat ttcaactttc tgaaacctat ttgaagtaga agtttttaaa atgtaattag 14220
gctaaatttg gcaaaatatt aataatggtt aaaattgagt gatgggtaca tgggagttta 14280
ttacactagt ttccttacgt atatgtttga aattttacat tttaaaaaag gcttctaatt 14340
aggaaaatgc tgaactataa aagatgttat tattctctta atgtttttag taaaacatta 14400
aaactctaac atttatttaa aagcacaggt gcagaatata ttcctaaaag aaatcatgtt 14460
tgaattgtat agttgccact gcatcaaagc catgaagtag cattggtttt atatggataa 14520
agatcaagaa aacttatttt taaggcaata cttttgcaag acaattataa aattgttttg 14580
```

6540

```
gcttaattgc actatctccc aaaactcaat ttgctgatat tagaagagaa gggagtctgt 14640
acccatgaga gaatgtcagg ttaaaaatag acagtacaga gaaaaaagtt ttggtaatga 14700
aatattatat tagctattat attaatatat tccctctgtc atgaaataat tgtcaccttt 14760
attgataaca tatgcttatt gccaatgttt tttaactgca tatggtatta acacttaagc 14820
tttggataag tcatattaaa aacattccca acaaggtcaa tattaatagc ctgtttaaat 14880
tttcagctaa taatattgtt caccaaatta gagttaacag tatgaggtag ttcatactta 14940
aaatgaatca cttgggtttt ttctaaacct tctttaaatt tgggtagagt cgtttagact 15000
cagctcttag ccagtttat aaatatgtgc cagatgctgt taagaaagat tgtattaaaa 15060
tattaaagag gcatttcttt tctttcccat tttttataca aacccagacg ctatgaaagt 15120
tctttaagga ttcatctttt tttttaaat aagatctgat aagccctaaa agtttgcctt 15180
ttttttttctt tcctgtaaca tgtttgtaga atagccattg agtccatcta gcctcaacca 15240
cacttatatt ttgttgtatt acaaaatgcc cttcctggtt tttttttttg ttttttgtt 15300
ttttttaagt ctacatcact tgaaacttcc tggttttcta acttcgcctt catccaatcc 15360
tctttgtaag tctgatcatc tttaaggttt acttcagtaa aaatagaaag ctcatttttc 15420
tagcaccatt cactacacat ttgtgtatac tggtagatga tttgtgaacc ctaagatgtt 15480
ttcaaagtag gtattttcct ctctaaaggt aggctgataa ggcaaatctg ttagaaaacc 15540
cttggtaagt aagtacctca gatgacgtct gtagatttgg tttttatcca gttagaataa 15600
attaaggtta aagaacatac tacgttaaga tttttgaaac catttgaaag cttgcagtaa 15660
ctcataaaat ctctactta caataaaatt agttaaatct caacacctgt atccaaaat 15720
tctaattctt tctggatgat aattactgaa gcttttttct ttgaaaaact tgatacagta 15780
ttcctttgca agacaggata aattcatcac atttaaaaat gtatcacatg ttgaataagc 15840
tttaggtgac ttttgtaaa gcaaatttga aaatgctatg aaaaatcagt ttctaaactg 15900
tacgcttgta gactgaggca cttaatttat tcacctccct tttttcagca ttgaagataa 15960
tgatgatgac agcaaaatgg cagatctctt gtcctacttc cagcagcaac tcacatttca 16020
ggagtctgtg cttaaactgt gtcagcctga gcttgagagc agtcagattc acatatcagg 16080
tgtgaatact tgtttttcat aactcagtga gaaatatctt aaccttaaag atttccaaat 16140
ttataaggtc agataatttg ccagataact gctgctttag ttcagaatat ggtggaagat 16200
ctagttataa ttatcatttg catatactat taagctgttt tgtgtttgt tttgtcttgt 16260
tttgtttttt gaaatggaga cgtgccctgt cacccaggct ggagtgcagt ggtgcaatct 16320
cggctcactg caacctctgc ctcctgggtt caagcaattc tgctgcctca gcctcccaag 16380
tggctgggat tacaggcgtg tgccaccaca cccagctaaa tttttgtatc ttcagtaaag 16440
acagagtttc accatgttgg ccaggctggt ctcgaactcc tgacttcatg atctgcccac 16500
ctcggcctcc caaagtgctg ggattacagg cctctgaggc actgcgccca gcccagtagt 16560
aagctgcttt acaatctgaa gcagaacagt ttgtagtgct gttgtttaag gatgccatac 16620
cttttcagt aaagatctaa cagggtaagt ctgagttgtt gaggtagccc taagaaaact 16680
ggaggaatac tggtatcatg aagcatttca gccatgttgg acaattgtcc tgagacagac 16740
tgaatgttta ggaattaatg gatttttgtt cgggcatggt ggctcacgcc tgcaatctca 16800
gcattttggg aggctgagtt gggaggatca cttgaggcca ggagttcaag ataagcctgg 16860
ccaacatggt gaaaccccac ctctactaaa aatacaaaaa ttagctgggc gtcgtggcgc 16920
atgactgtag tcccacctac ttgggaggct gaggcacgag aattacttga acccaggagg 16980
cagaggctgc agtgagctga gattgtatca ctgcactcca gcctgggcaa cagagcaaga 17040
acctgtcaca aaaaaaaag aaattcatgt attttaata tgttaaatat tgtttggttc 17100
ggggcttttt cagaggagga caattaaaag ttttcaagga gatgaaaata actttagtgt 17160
taatagatgc aatatggatc acacacacat agattatttt cctaaaacat ttattttaat 17220
atgtctggca aaataatctt atgagggaaa agagtgcttt ataaaaagta gcttcagatc 17280
tatactgaaa aaacaaagat atttatgtct tgatgttaag aaccattatt attattgagt 17340
agctaaatac attcatgctt tagctctgag caatacagag ggtgtgatta taaatttcta 17400
ggaaggtata aatgtactgg gaatgtagtt gtgacaatag aatgacatag aggagagtca 17460
ctgaaggatg attttctttt gcagtgctgc caatggaggt cctgatgtac atcttccgat 17520
gggtggtgtc tagtgacttg gacctcagat cattggagca gttgtcgctg tgtgcagag 17580
gattctacat ctgtgccagg tactaagttt ttgttttgt tttttaaaca actgaggcaa 17640
tggtgaaaag aaagatggtc ctttgccaat cctgataaaa ttacttgatt ggtgttctga 17700
gttaaagctt agaataaaca agttttgcta agctgtactt aactttctca aataacttag 17760
aatttaaagg ctagaatatg ctaggtttct agggtataga ataatatgta ggacagatgt 17820
agtaaaccat actactacca tagagtttac atgctagctt aactgatttg ggaaaaagag 17880
ttatattaga aaaatatatt caagtcattt ttacactaac tgtaaactca ttgtggtaat 17940
ggtttagatt aaaacagcac tagcatttc ttatggctca ttaaaagtta ttctatattt 18000
tgaa                                                                18004
```

<210> 8837

```
<211> 87
<212> DNA
<213> Homo sapiens

<400> 8837
ctcacgcctg taatcccagc actttgggag gccgaggcgg gcggatcacg aggtcaggag    60
ttcgagacca gcctcaccaa catggtg                                        87


<210> 8838
<211> 87
<212> DNA
<213> Homo sapiens

<400> 8838
ctcacgcctg taatcccagc actttgggag gccgaggcgg gcggatcacg aggtcaggag    60
ttcgagacca gcctcaccaa catggtg                                        87


<210> 8839
<211> 1493
<212> DNA
<213> Homo sapiens

<400> 8839
cgacaagtga cttaaacact ctgtgcccag ttttccgcat ctgcaaaatg gggagataaa    60
tagcccctac ctcctaggat catcatgaga atgaggtgtg cgaagcttgg ccggcatggg   120
ttccatagca ggcactcagg ggtgtcggcc acgaagatta ttctttctct tctctctttg   180
ccgtcttatt tcatctctct ccgttatttg gttcccctgt ccttagtccc ctttctcccc   240
caatggcatc ccaagatgca caatagtggc aagtgcccag cctgtttcca cagcctgatc   300
cccaccactg cgttggccag tcacccaaga agcagctgga cccatcatct ggctctaggg   360
atgacccagt tccagcaccc ccgcaaacct ccgtctgtcc ccctacctcc ctcagcagag   420
gcccagccca atgcaggccc gtggctggat gggagtagct cttcccacca ccctgggca    480
gggctctgcg gagcttggga gcctcacctg gaatcggccc tcatgcctca gtagagaagg   540
agagcgagga gagaggtgat ggggctccgc gggcacCCCC gatgcacagt ctccttctgg   600
gcttctgatg gccacaaggc cagaagacct gcccagaaga attcagtata acccagttca   660
gtgaaattgg agagaacgag ggcctgcgtc ttccgggcag aaggcagggt tcctgccctc   720
tggagccctt ggcctggcgc gggctgatta ggacctagat ctgcctgggt ggctgggtgg   780
ccgagtggcg attgggctgg ttctgtaccg ggtgtgctcc gtggggggcg tgatctggca   840
aagccttgga ggtgggactg tggaggcacc attgattgaa ctgtgtcccc tgcaattcac   900
atgttgaggc ccaaacCCCC agtgtggctg catttggagt agggcagtaa ttatggttaa   960
atgaggtcgt atgggcgggt gctgatccac taggattagg atccttataa gaacctgcca  1020
ccttctctct gccacgtgag gacatgggga ggaggcggct gcctcccacc caggaggagc  1080
ccttactgga cactgggccc tggctgcacc ttgaccttgg acttctagtc cccagaactg  1140
tgagaagtag atttctgctg attacgcttt cctgtctgcg gcctgagcta agacagcagc  1200
gcttggggag aagcagaatt tgaggagctc ctcagtggca ggctgccctg gcctgctgt   1260
cagcagaggg gaatggccat ccatgctggc ccctcaccag ccgggccttc agtgagctcc  1320
ccgggtaggt gaagctctcc cagctctgtg tcccccgcca aagcaggccc acaagcgagc  1380
gcctatgggg tggagtgaga gtgaggaaga aacattaccc gaggggtcac tctcttcaga  1440
agacctcaat gactgtagac tactgaatta tttccttaaa aaaaaaaaa aaa          1493


<210> 8840
<211> 470
<212> DNA
<213> Homo sapiens

<400> 8840
gggtcatggg tcatttacgg cctgggtctc cccctctcct ccctcctcct tctctccaac    60
ctgctttctt gctgctggaa gggggtgtgc aggctcccgt gtgcctggca cagcaggggc   120
agcacaggag actccatggg gcctgtgtcc cgcacccCCa cgcccccgcc cccagccaca   180
```

6542

```
gcccttttgag agcacagcgg aatgaacgcc tgattaggaa tcagatgcca gaaagaagct    240
gtgtctgttc caaaatcaag agaccaggag aagtgacgtc ctttaaaagg agagagctaa    300
gtgacagaga gggggcttgt ccccagccca ggcacctcgg ggctgcaagc tcctttgaga    360
tgcggggctc aggcctcatc aggggaaacg tgggcatcta gatgaccctc cacactgagc    420
agacccagca caggctgcgc cactcatcat tataggctgc gccactcatt    470


<210> 8841
<211> 89
<212> DNA
<213> Homo sapiens

<400> 8841
tttttagatg gagtttttgct cttgttgccc aggctggagt gcaatggcgc aatcttgact    60
cactgcaacc tccgcctccc gggttcaag    89


<210> 8842
<211> 1616
<212> DNA
<213> Homo sapiens

<400> 8842
ctgcagtctc cctagcatct gttatttatt gactttttaa taacagccat tctgaccgct    60
gtgaaatggt atctcattat ggttttgatt tgcatttctc taattgttag tgatgtggaa    120
cattttttca tatgtttgtt ggctccttgt atgtcttctt ttgagaagtg tctgttcatg    180
tcttttgccc agtttttaaat gggatttgtt ttttgcttgt tcacttgttc acacttttttt   240
ttttttatag attctggatg ttagaccttt gtcagatgca taatttgcga acattttttc    300
tattttgtag gttgtctgtt tactccactg aaagtttctt ttgtagtgca gaagctcttt    360
aattaggtct cacttgtcaa tttttatttt tgttgcagtt gcttttaagc acttagtcat    420
aaattctttc ccagagccga tatctagaat ggtgtttcct aggttttctt gtaaaattct    480
tatagtttga ggtcttacac ttaaatattt aatccatctt gagttaattt ttgtatatgg    540
tgaaaggtag gggtcctttc accatagaat aaaacgttgt ttcattcttt tgcatatggc    600
tagccagcta tctcagcacc atttactgaa tagggaatcc tttccccatt gcctattttt    660
tgttgacttt gtcaaagaac aggtggctgt aggtgtacag ctttatttct gggttctcaa    720
ttctgttccc ttggtctgtt tgtctgcttt tgtaccagta ccatgctgtt tgggttactg    780
tagctttata gtatagtata aagtcaggta atgtgatgcc tcagctttgt tcttttttgct   840
tgggattgct ttggttattt gggttctttt ttggttccat atgaatttca gaatagtttt    900
ttctagttct gtgaaaaatg acactggtca tttgatagga ataacattga atctatagat    960
tgctttgaga agtatagcca ttttaacaat attgattctt gtaatccatg agcatggaat    1020
gtttttccat ttgtctgtgt catctgtgat ttctttcagc agtgtttcct agttctcttt    1080
gtaaagatcc ttcacctcct tggttagatg tatttctagg tactttgttt ttttgatggc    1140
tatcgtaaac aggattgtgt tcttcatttg gctctctagc ttggatgtta ttggtgtata    1200
gaaatgctac tgatttttgt acattgattt tgtatcctga aactttacca aagttgtatg    1260
tcagttccag gagcctttttg gtggagtcct tagggtttcc catgtgcaga atctcatgat    1320
tccttaaaag catgcatttc tacttaaacc atcatgttta cttttctaga gagcaattaa    1380
cttggaggtg ggtgccgggg aggttaggtt gcttttgtaa tattaatgga tgtacaccaa    1440
gaatattgct tctgagaatg atcttatcct cattgggaaa gatttttctg tttttagttg    1500
aaattgagat gaaatacatc ttattataaa taaatttga ctcttactaa tgattacagg     1560
attgtagaca attaactgtc tttcctcatg ctgagtacat aaaaaaaaaa aaaaaa    1616


<210> 8843
<211> 489
<212> DNA
<213> Homo sapiens

<400> 8843
atagctcaga gtgtatgttt ctagacttca ctctctacat acacaaaatc ataaataaca    60
tcttttatat tacttttttta tttagttttt aaagtaaatg ctttttaaag ttttttcttt    120
taaaaataaa tgccttttttt ccctaaata tctgtctctt ccaacagaac ttcctcaaca    180
```

6543

```
atttccaaac tgctaaagaa gctttgagta cagccacagt ccaggctgca gaaagagctg      240
cttccagcat gaaagacttg gctcaaaaga gtttccgcct tttgatggat attaatttga      300
aagcaccagt tattattatt cctcagtctt cagtatcacc taatgctgtt atagcagatc      360
tgggtttaat cagagttgaa aacaagttta gcttggttcc tatggaacat tattctcttc      420
ctccagtcat tgataaaatg aacatcgaac tcactcagtt gaagctgtca aggtataaat      480
atgtaatct                                                              489


<210> 8844
<211> 342
<212> DNA
<213> Homo sapiens

<400> 8844
tgagaactca ctatcacaag aacagcatgg gggaaactgc ccctgtgatc cagtcacctc       60
ctaccagttc cctcccttga cactggggat tacaattcga gatgagattt gggtggggac      120
gcagagccag accatatcac atgggctgaa ggatttaaat ctgcctattc ttcttagtgg      180
ggctgccaat caaaactttt aaaaatcata tttttttttc aaagaaagat aatttcaact      240
cttttggact tcacttgtta atttcagttg ataatccaac tattttagat tcagggcata      300
catgggcagg cttgctacat gagtatattg catgatgctg ag                        342


<210> 8845
<211> 1197
<212> DNA
<213> Homo sapiens

<400> 8845
cgagatcaca ccactgtact ccagcctggg tgacagagcg agactgtcca aaaaaaaaat       60
tgataattaa atgttaaaag tcagcgactc cagtaatacg tggtgggctg agtattagac      120
tactggctta catcctctga tgtcattact ttcttgttcg tttgtgactt gaggttggat      180
tttaagcaaa tgtatttgtg gctttttacc aaggtcatat ggccagataa cttttcaaaa      240
gcattagtta aagaattctg attagtttga attagaaaca aaactcaaag aacatgacct      300
aatttaacag gttaatttga agtgcatctg ccaagtagaa gaccagcaag aaaaaaaaaa      360
tgggttccta ggaagaggta gtaggttgca tagttttagg gcagggattt gcccacaag      420
gaggtaacta tacgacctgc tgcctttctt agggccttat tattcaccga taacctgttt      480
ccttgctact ttgctttggt gtaagcagag ttctttctgt aggttttttc aaatgaaaac      540
attgcaagaa tatcaaagag agcagtgttt gcgttagtga ttataaactg cagcatggtg      600
ctgacattga taactgaaag tcaactaatg agaatttgag acttctgaag tacacttagt      660
tgctagtgtc tcccttttgg tgtcactgga aagtttagaa agcatggttt tgttttttgct      720
caggtttctc tttctgtgat gcagagactc tcagctgttc ctcctctatg tctacattat      780
gtctgaagga aagaatttaa caaaacttga aatactgctg tttttctaca atgtttgtaa      840
atatttatct tgctgctttt ctaggtttgt cttctggatt taaaatttgg ggcggctggg      900
gtggaattgc atggtttggg aatgggtaat tgagctgctg ctcattatgg tatgtaacag      960
tgatttgtct gtttaatatg tacaagaact ggaaggtcaa taaaatgaaa gtggttgtct     1020
tgactgggta atagtgttac atattttgtt aaaagttata catcttttca ataaaaacac     1080
tgcatacttc aaaactagtg cttttttaagt catccttaac ccttatcccc atccttgcag     1140
tagtagatgc atttttcatt tgtaattatt atgatttgtt cttagtttca tttttca        1197


<210> 8846
<211> 2248
<212> DNA
<213> Homo sapiens

<400> 8846
ttaactctgg accaaatgta tgctttttgt tttatccact gtggacagct gcatagataa       60
ttggtctttg ttctaaactg cacataaaaa catgggagaa aatgacattt gttgcctttt      120
gatgtgccaa agaagagtgg gaatgttcta agaattcttt ttggcttaat ctttgttgaa      180
ttgaaaatat gtataactct tctgctgaaa gtgtagcaag tacagtcatg aaattttgtg      240
gtcttcctga catgttcttc cagcataacg ttgccacctt cagttggaaa cgtatcctta      300
```

6544

```
tctaataatt aagccctgga gaaaaattaa tttatatatt ttattaatta cataaggaca    360
ttgttattag ctaagcagag taagtaaatc gaaataaaac tttaaaaatg cctttatgga    420
gagaatgact atctctgaaa gcttgttttt aatgatgata aaattcatga tcagaatttg    480
tttctgtttg ctttaattca ggggtcaaaa actgaaatac catcagaggc ccaggagggg    540
ctagttgtaa ctggcaaata tagtaaatta atttgctctg gttgataggt agcaagcagg    600
gtttatatac attgtcacct acttttccag ttaacaggag agactggaga ttttatgaaa    660
tttgatattt aaatgttggt aactgggttg ggcaccatgg ctcacacctc taatcccagc    720
acttcgggag gctgaggcgg gtggagcacc tgaggtcagg agttaaagac catcctgacc    780
agcctggtga aacacagtct ctaataaaga tacaaaaatt aggccgggtg tggtggctca    840
tgccggtaat cccagcactt tggggaggcc aaggtgggcg gatcacctga gtcaggagtt    900
tgagaccagc ctgcctaaat ggtgaaaacc tgtttctact aaaaatacaa aaaagtagct    960
gggcgtggtg gtgggcgcct gtaatcccag ctactctggg ggctgaggca ggagaatcac   1020
ttaaacccag gaggcagagg ttgcagtgag ccgagatcac accactgtac tccagcctgg   1080
gtgacagagc gagactgtcc aaaaaaaaaa ttgataatta aatgttaaaa gtcagcgact   1140
ccagtaatac gtggtgggct gagtattaga ctactggctt acatcctctg atgtcattac   1200
tttcttgttc gtttgtgact tgaggttgga ttttaagcaa atgtatttgt ggctttttac   1260
caaggtcata tggccagata acttttcaaa agcattagtt aaagaattct gattagtttg   1320
aattagaaac aaaactcaaa gaacatgacc taatttaaca ggttaatttg aagtgcatct   1380
gccaagtaga agaccagcaa gaaaaaaaaa atgggttcct aggaagaggt agtaggttgc   1440
atagttttag ggcagggatt ttgcccacaa ggaggtaact atacgacctg ctgcctttct   1500
tagggcctta ttattcaccg ataacctgtt tccttgctac tttgctttgg tgtaagcaga   1560
gttctttctg taggtttttt caaatgaaaa cattgcaaga atatcaaaga gagcagtgtt   1620
tgcgttagtg attataaact gcagcatggt gctgacattg ataactgaaa gtcaactaat   1680
gagaatttga gacttctgaa gtacacttag ttgctagtgt ctcccttttg gtgtcactgg   1740
aaagtttaga aagcatggtt ttgtttttgc tcaggtttct ctttctgtga tgcagagact   1800
ctcagctgtt cctcctctat gtctacatta tgtctgaagg aaagaattta acaaaacttg   1860
aaatactgct gtttttctac aatgtttgta aatatttatc ttgctgcttt tctaggtttg   1920
tcttctggat ttaaaatttg gggcggctgg ggtggaattg catggtttgg gaatgggtaa   1980
ttgagctgct gctcattatg gtatgtaaca gtgatttgtc tgtttaatat gtacaagaac   2040
tggaaggtca ataaaatgaa agtggttgtc ttgactgggt aatagtgtta catattttgt   2100
taaaagttat acatcttttc aataaaaaca ctgcatactt caaaactagt gcttttttaag   2160
tcatccttaa cccttatccc catccttgca gtagtagatg cattttttcat ttgtaattat   2220
tatgatttgt tcttagtttc atttttca                                       2248


<210> 8847
<211> 814
<212> DNA
<213> Homo sapiens


<400> 8847
caggcggtct gatagaaagt cagttaacta attgtacaat atttaagatt aacttgtctt     60
aaagagatgt agtgcagcat ttgtttatgg cctggaaata aattaattta gagataaagt    120
ctgtagcaag tacactggat gggggtgggg aaaccttttg cttcttgtct tatttctctg    180
tgtcagaata aatgtatttt tttattttga tttatgctga taatttttatg ttgaaattttt   240
ctttcgaaag agattgtact ttccattcca gaagaaaaca ttgctctatc agagtgaggt    300
agtagattgt atagttgtgg ggtagtgatt ttaccctgtt caggagataa ctatacaatc    360
tattgccttc cctgaggagt agacttgctg cattattttc tttttattta gatgatatta    420
aaactcagaa gaattaattt tgacattttg tatttacagt ttatcagtta attttctctg    480
ttcaagtagt acagtaggca cagattaaca tttaaatttt tcacatatgg tatatttcag    540
aaatttgaag ttaagcaaaa attttaatga gtagagaaag taagtagcct tcaggaaatc    600
ttcatagagg accaggccct tttggaattg tgaataggtt tattgcctta catcctggta    660
cacatgtcca aggtcaggtc ctgggtggta aaggtaaata caaattggaa gggcactgtg    720
tgagccaaaa tgagtcagat tagtcatgat tcatttccag tttgggtttt gggtggtctt    780
ggagaatgtt gtaagcactg cttcattgat aggt                                814


<210> 8848
<211> 1348
<212> DNA
<213> Homo sapiens
```

<400> 8848

```
tcacggcatc ccactctgtt ctgccgagga cgtgaatctt tcctttgttc agtatatccc     60
atgctgtata cactacctgc ctgtcagtca ttcagtagcg gcctatgtta tcagattggc    120
tgatcattgt attgcagtgc tatgttcagg taacacttat tttacttata gtggtcccaa    180
ggtgcaagag tagtgatgct gacatattat tataacttct attttattat tcttattgtt    240
aatcttacta tgcctaattt ataaattaaa cttaatcata ggtatatata tataggaaaa    300
acatagtgtt atatagggtt caatactagc cccagtttca gttgggggtc ttggaatgtg    360
ccccccacag ataagagggg actatattct tatagaagaa gagtttgatt ttttaggacg    420
ttatttcctg ttcaaaccat tgacccactc tttgagataa gttattctga agctttcata    480
taagtaaaag caattaaatt ttgccaccag caccatcctc aaccattctg aattataaag    540
tgttaaaatt aagaacagga agaatggaag tattcaataa aaaatgaagt attttcagtt    600
ccatattgtc atcaaataag ggtgggaaag gcaaaggaga aaatcaataa gtatggagaa    660
gaaagaaatg agtagacaga acaaaaaaga tgagaaagga agccatattg aagtcaggag  · 720
agagtgcaga gcaagaaagg atgggcagaa aaaagaaaa caagaaagga gtttaatgag    780
tgagtagaat gtgctcttgt tgcattctac tgccagtcta agccatggaa tagttcacta    840
ttctgggaag tattcttaag atcatcagtg accttcaggt catgaaatct aataagcatt    900
ctttcagacc tgttcttatt tgacctctca gtggtgtttg acactctcaa ccaccaactc    960
tttgtgaaac cttttttttcc ctgaaagctg tgaggtcgtg ctttctcggt tctcttctca   1020
tgtctctggt aactcctgct ttgtctactt tgggtttttt gttttgtttt gtttttttgtt  1080
ttttaagagt tgggatcttg ctctgctgcc taggctggag tgcagtggcg caatcatagc   1140
tcactgcaac ctcacactcc tgggcttaag tgatctacct gccttggcct cctaagtaac    1200
tgtgttcatt tgacacagtt taggaactaa agatcaggta aaaccagcca gttcctgagc    1260
tggaattgaa tctgttcaga atgtctggga actaactcca tttttacgtg tcaaccatac    1320
ctggctaatt aaaaaaaaa aaaaaaa                                         1348
```

<210> 8849
<211> 1348
<212> DNA
<213> Homo sapiens

<400> 8849

<210> 8850
<211> 6662
<212> DNA

<213> Homo sapiens

<400> 8850

```
agcctcctga gtagctggga ctacaggcgc acgccaccat gcctggctaa ttttttgtatt      60
tttagtagag acggggcttc accatgttgg tgaggctggt ctcaaactcc tgacctcgtg     120
atccgcctgc ctcagcctcc caaagtgctg agattacagg cgtgagccat cgcgcccagc     180
ttcggtgtgt tttttaaaaac cttgatttta agatgttatt tgtttcaggt cattacatta     240
gtgatgtata tgacattaag aagcaagcgt ggtttactta caatgacctg gaggtatcaa     300
aaatccaaga ggctgccgtg cagagtgatc gagatcggag tggctacatc ttcttttata     360
tgcacaagta agaaactttg ccagattcta aataatgagt tagaaatcac cggaactctt     420
ttttttttttt tttttttcctt tgaggataaa atgtttccat cagttgattg gttgaaaatt     480
tttggttttt atcatctttg gttagggtct atctcttgat atttccttgt aagtccagaa     540
tattttctct cataactcag cattaattgc tcattacaca gttgtatcta ggtatggaag     600
ttaagacagt ttgtttttatg atagaagatg tcctgtcata aatagtttttg gtcatccagt     660
tttatcagct agaagatctg atttatatgg atgggaatta cctagcatgt tcattaaagc     720
taactgttgt cagttcccct ctattcttaa aaatcagcat tcaaagggtt aagatcaaat     780
gagtgagctg cttttttaaat aaaatacagg catgaaatgg aattgtgaag gccttatcca     840
tatcaatttt atttttacttt ttctcctgcc tattctttgg ttctgcttac taaatttcca     900
gttttatttt ttgcttgttt tatcttaagg gagatctttg atgagctgct ggaaacagaa     960
aagaactctc agtcacttag cacggaagtg gggaagacta cccgtcaggc cttgtgagga    1020
acaaactcct gggttggcag catgcactgc atatttgtta ctgctgccca cctcaccttt    1080
cctctgctga aggagaattt ggaattctac ttgatgcggg agcaacaaac agctcagggc    1140
caaaccaaaa gacaaaaatt ggagtaacgt agaatgctcc atgctatttt atggaaactt    1200
tggtctcaca tccgtagctg attatcctct ttttctccta tgagtggcac ttcttttgtc    1260
ttaggaatac atgttgtaaa tatatatctg tgtatgtgtg tatacacaca cacagacaca    1320
cacacacaca cacgggatga atggagcctt aaagagttag gatgagccac cagaatatgc    1380
ctgctcaaaa ttaatagcac agcagtttgg agaagaaatg aaggtgtcaa agagtccatt    1440
cacctgagaa atgtgtgaag acatacttat cagttggctt ttagctttta tgttccttga    1500
gtagtttcac tcaagtctgt aacctttttgt gtttccttat tagtaaaatt cactggaaag    1560
ccagctcttc atgttacact aatgacagtt tgttctcttt gcaagagagg ggcattactg    1620
tcacctgact tgaggagctg ttttgttgtt gttgttgtct gcaaatttca tgaatttgtg    1680
atgtctttgc tgtttacatg cagtcccaag aaatggattg ttggtgcttt ggaatatgtt    1740
acagtcccac atttgatatt tcttatatac tttgtttttct ctaaggagat ttcttcacac    1800
agtatgttca tcatatatca tcatcattat tatggtggta aagatagaat cttttttcttt    1860
ttttgtcatt ctgccatgga gcagcattac cctaatggat tgcaaccaaa actttaaaca    1920
agtagaaaga taatatttct ccaattggga ctccccagca ggaatactta gggataagga    1980
agaatgctag catctctgtc tctcaaacat agggaggata agaagagtgt tcttctggta    2040
aagctaaaat tctggaccac tgaagctaaa agccctattg caagtatgaa attaagtact    2100
tgagctgtag gacaaacctt gggcatttaa ccatttactg tctggctttg cccttaaaat    2160
agggttgcaa ttaaaatgtg attggcttag gtaatcccaa aaactaacaa ataacaaagg    2220
tgcataattt atttatctac tttttaggtg ctctgagttg aggcaaagta gagcggcaac    2280
attaagtgct atgctagtca cttagctgac gtaaccagct tggttaagca gcttatgaaa    2340
ccatataaag aattcttttg aggatggaat tctgtccaca aaataatttt gtgagcccag    2400
atatcattag gatcacacag agttaaatat agaaaaatga aaccatcatt atattctttc    2460
gtgtttttttc tttattata aacaagggga ttattcttta gttctcagag gtagggacaa    2520
aaccacatca ggttttcaga aggaaaaaac atttaaaaac ccaccatcac atgagagaat    2580
cacttgaacc caggaggcag aggttgcagt gagctgagat cgcatcattg cactgcagtc    2640
tgagtgacag agtgagactc catctcatta aaaaaaacga aaacaaaac aaaaaaaaca    2700
caaaccatca tcacagaaga tgcaacatct tttctgaaag attgccttaa gagagctcca    2760
gtcctactct tggaacttgg atgtattcta atgtagtaaa ctattctaag ttttcattct    2820
ttgaattata aatggcctca gcagttttgc tcaactactg ataaatgctt tgcctcctac    2880
catctaccta tataccttat tgtaatgaat gttccaaaat ggtagagtgg tagaaaacgc    2940
cagagtagtt tagagcagag gaaaatattt gttttaaaac tagctttaaa gttttgtttc    3000
atttctacca ggagcctctt tggtttggtt tgattttgct tggaaataat tggttttctt    3060
ataaatgagt gaagcggtga taaaattctt tggctagtta ttaattcttt tacgtgtctt    3120
tgcatttgag aggcactgtt aaaaattatt gggaaagatt taaagtgcag gctgcaatta    3180
aaacatggag aaaagtagaa ataatgccat aagtctagat tgcctcatga agcagcctca    3240
tttgaattgc tttcatagct ttcatgtgtg tatggtttag aagtacactt acctcagaaa    3300
cctgatttga tcttcatgtc ttgggcagga gttgttgaaa ataggttatt ggaatatata    3360
agttatctca ctgctcatgt acttgcatgt ttgggactca aattttactt gatgtctgtc    3420
cattcttgtg gccctatcag ccttctcctt cctttactcc tttaatctac ttctttgact    3480
```

6547

```
accagtggag atttcagctg gactatgttg atggggtttg ttgttgtttt tgagctggct     3540
gtatatattt taaaattata aatagataat atattatttt ttgcacattg tgatcagttt     3600
gcccagaatt ggggatgggg cagttagcat gttggggcca ggaagggaca agttagataa     3660
ggactgagtg cttccgttgc aggcagtttg cacaatacct aattaacctt cctattgaaa     3720
ataccaaatg tgtggttaca ttactttaaa tgacattgaa ttggaacttg atggcaatta     3780
gttctagata caaccttttg atctttgttg gaattttaag ggaaaaatga actaaacttc     3840
atatttgttg attttaatca cctaatagta ctgaaggttg gaaagttgca tgtggctgga     3900
tgctgttaat ttctttaata gccatgacta taatttaagc ctatgagaag atagactgtt     3960
tcgtagggat atattcacat gtgtgtgcac actcatgagt tttgtctcag caggatagaa     4020
taagcaaatc catgaactgg tcttctatta atactttgat tctaaaaatt atttgtttac     4080
ttgctatggt ctgttcattc tgggcctaac cttaaaggct caataacaaa tacaacaaat     4140
gtaaatatgt ttacatttta agacatatgc agtggttctt acagatcagt taattaactc     4200
cagaaagcaa atgttagact acacatttat ttttctcctt gatcaagtat aaaattctga     4260
aacagaggct ttaaaattta aaacctcagc aaaataatcc atgaatttac tgattcttct     4320
gtatcgtgtg tagttaccat tatgtaacta tacacacata cagctacgga tataatgaaa     4380
attatctgca aacacctaaa ttaaagagaa aaaaaagtag tttgtaaact catttgtgat     4440
ctactgaaaa gaggttatat taaagcaaat taaaatattt tccttctctg tcctctgaaa     4500
tgactgcagt agatactctt agttatccca tttagggtgg ttggagggcc tttttaattt     4560
aattgacccc ccgaggtggt cttttgtttt aaacaggggg caacagctgg atctccaagt     4620
acatatggat tttgtatata taggagattt ttagaaaaat caacaaccta acaccagatt     4680
caagtcacat aaaagtgttc caataaaatg gatggatgtc ttttccctcc ccattttgct     4740
ttatactgag taatgcactc ttgcaagtgt atacaaaaac taaatagact tctgccctcc     4800
aacatctttt tattgcatta cttcaaaatc ctaattttgt ctctactgat atgtcttatt     4860
aacatctgaa aaaatatata tttttttattg gaaaattcta atttgttagg ccttgaaagt     4920
tttgtgacaa ttattttgct gtgtttaacc acaatcattc accttatggc atgctttgat     4980
tactagactt caggcagtct cattcattgt atcatactta cacacaatta gtaagttgtc     5040
tccatgtgtg ctatatgtct gaggtgtatg gagtttttat ttaaaaagtg tgccagtctg     5100
aatataagca tttgattttg taacattgga cttttcttaa aagtacagag gttcaaagta     5160
taggtatgtc cattggcata agaatagagt gggtgagggt ctggaccagg ttccaggttg     5220
gtccagtcag atgccagaac aaagaagaac agtcaactaa actggtctac ttcaaaaata     5280
gtgggcctgt gtgaagagtg agaccacatg tgggtgtgca cacctcttgt ccccaggttt     5340
ccctcccttt gagcttttct ttccctccct aacttctctg gcctattgtc attgttgttt     5400
ctttaaactt aaggagagaa aaacaaaaat gagattccta cactttgcct aattgagcca     5460
ctaccaggtt ttctggcagc tgtggccaca ttatttgtga gatgattttt tttctttatg     5520
ttcagagtga cttttgattc tgattctttta tgtttttgtat ggagcggcac ttttatctgt     5580
gttttagcag aactgttcct ctgtatcctt tacggttttt ctttgttttt gtttcctttt     5640
taaattatgc atagagtttt tttgtgtgta tgaaattaaa gcctttatta accttctttg     5700
atttgactgt tatttctgaa aaggacacat tcttgctgat acttgtaaca acctgttcaa     5760
agttgtggaa atcaccttct gttggctttc tgacatggac ttccttgcag cactgttact     5820
tcttaaaagg aacagaatgg caaaccagtg tctggccgta gtccccattg attcctgtta     5880
ttttcatctg aggagcctgt gaagctttgc agaggcttct gggtaagttt gtaaacctag     5940
cattggcctt cactaggctc ttgctttgcc tcattattaa gggttgggag agggagtgaa     6000
gtagcatatg catttcatac ttgcctttag gtctcaagcc tagccccagt ggaagtgctg     6060
ctctcactgg tactgtttgg aatttgtgaa acctcttaag agggtagtct tgtggaccat     6120
tcaactctcc ttcagccctt taacttaccc actgagtaag gcagtaagga aagtatatgt     6180
gaaaaggaaa agctgttact ctggggaaga tgtaaacctg caaagtgctt cagcctacct     6240
gccatagata aaaatgagtc atgatagagg acaagctagg gtagtgcctc agaactctaa     6300
tgttccatgg agtgtttgtg ctcttctaag aagagaaaac tataggagta ttaaaattga     6360
tgcaatacct caggatagaa acaatctagc gaccttagaa gttgaaatga ggaccatagg     6420
ctcctttttgg ggtatcatct ttctgaagga ataggtacat tattaaacaa aactggcatt     6480
tgccacagaa gtttgtgctc ataggcacat ctgcaaaatt tcacttcaat tggtgtagga     6540
ctaatatcgg tgagaaaatg agaccctaca atcagggtag ggtactgctt tacaaccaca     6600
gctactcttc tcaaaatagt ccttttttctt tcttgaggtt ttgttgcttc catcgaggca     6660
ga                                                                    6662


<210> 8851
<211> 3484
<212> DNA
<213> Homo sapiens



                                6548
```

<400> 8851
```
cataacaact ctgttctttc ctcctggcag gtgacagagc tgaatgagcc actgtcgaat    60
gaggaacgaa accttctgtc tgtggcctac aagaacgttg tgggggcacg ccgctcttcc   120
tggagggtca tcagtagcat tgagcagaag acatctgcag acggcaatga gaagaagatt   180
gagatggtcc gtgcgtaccg ggagaagata gagaaggagt tggaggctgt gtgccaggat   240
gtgctgagcc tgctggataa ctacctgatc aagaattgca gcgagaccca gtacgagagc   300
aaagtgttct acctgaagat gaaaggggac tactaccgct acctggctga agtggccacc   360
ggagagaaaa gggcgacggt ggtggagtcc tccgagaagg cctacagcga agcccacgag   420
atcagcaaag agcacatgca gcccacccac cccatccgat taggcctggc tcttaactac   480
tccgtcttct actatgagat ccagaacgcc ccagagcaag cgtgccactt ggccaagacc   540
gcgttcgacg acgccatcgc cgagcttgac accctcaacg aggactccta caaggactcc   600
acgctcatca tgcagctcct ccgcgacaac ctcacgctct ggacgagcga ccagcaggac   660
gacgatggcg gcgaaggcaa caattaaggc cccaggggaa ctggcagcgc acgcggatgc   720
tactactgca gtctttattt ttttcccatg agttgggggt cgggtggggg agggaaaggg   780
agggatgacc ttcccaggga gaaacccacg acctgtcctg tctttgatcg cctctttgac  ·840
attttgcca aaataccact agtggaaagt caggctagct gtgctggtat tggaatagca   900
gcctcacact ggcgtctgga ctgttctgta gattcatgca agtggagctg tctgtctcta   960
atttaactta ttgctagata ataggatttt cagatgaaaa gaaaacttaa agaggaatgg  1020
ccctcattca gtaagttctg tggttccagt aaggattttt atgtacatac gctctcgtct  1080
ctcgttttgg gtactttcta tctcatctgt ctcggctctg catgtttttcc agggtgtagc  1140
ctacagacat ggaacagtgt aaatcccaga ctgacagact tagaacctga ggtctcattc  1200
atccttatgg tttaggcctt gccagttttc cgaagtctct gattagttga cagtattaac  1260
actaaattgc agtttacagt atttctacat tacagccata tgtaacatca agccatcgat  1320
tgtgtacttt cctttgcta gttgtttggg ctttaacatc cttattcagc cttatccagg  1380
ttggttttgc tgttgatcgg tctcctaggc taaatgagaa tgaaagcgac ttcaggtcag  1440
gtggctgtgg dattttttttt ttttggtcct tctttcctct taacgtaaat ccaccaccaa  1500
aattattaat cctcttgaga gaaacgtgaa acgccacaaa aatagagaaa attcaggtct  1560
gtatgtcatg gatcgtgttg gtattttcag agaacatccc gcttctgaag ctgctgcagc  1620
tccctcctca gggatcacac tgccgtcacc cactctgcac tggggcgttt cctactgcgc  1680
ctcgtgctgg cggacgcagc tgggtgcaga agctgtgggg tcggagaggc gtttggagaa  1740
ggtctgtggt gcagtgtgtg aaaattcagg tgctagaagc ctactggtag aaaaacccaa  1800
aaggaagagc tatatcctta accattctgt ccaatttcgg gagccttgtc agtgtgtcag  1860
tttttcctcc ccgaagacac tccttcccca agtaattgta ggaagataaa aaaactgtta  1920
ccagataaca aacactgaac tcctatttga ccagaacttt ttcctctcga gatagttttt  1980
tcttttttaat gaaaaaagca taggaattgg agattggctt gtctcacgca gccagtgcac  2040
atttggaatt gacggaaaca acgttgctat ttccacccat ttgtttttcgg cagccttaag  2100
gccctcattc tcatttcggg tgaatctgtc tatctgtgaa cgtggcccgc atgtgcattc  2160
ttttttttat atatataaag tcagtgacga ggaactcccg agacgtgtaa tgacaccaca  2220
cttgttttct ttgtttcttt gttttattta ggcaagaaga ggtgtgagta attgaggaaa  2280
aactgacaga tgcttttgct aataccaaaa ttgagcttac aattaggaac tgagtatgtg  2340
taacaggata caggtgacag tgaagataga agaaccacga tgaccacaga ctcaatgtgc  2400
tctgtaacat cgcacagttt acccagcatg actttcctta ggaggccccc tcctcacgct  2460
agagtaaaag tcccagttaa gtgaagccta ccagaagaac tagtagaaga agctttgccg  2520
cttttgtgcc tctcacaggc gcctaaagtc attgccatgg gaggaagacg atttggggggg  2580
ggagggggg ggggcaggg taggtggggc tttccctaat ttatcttcat gtccagtgag  2640
cagtgttgcg ttttttccttg tagcatttgg aaatgattta ctggaattac aaaacctatt  2700
tttcctttaa atttcagctt tggctctggc tgcttttttag aataatgcaa gataaaaatc  2760
acacctgagg gctgaaaacg gagagggaat gggagacttg atatttaagc agcttgaatg  2820
gttttttcttt tctttatttt taaagaaatg cacttgccta tgatactgtc tctccagtga  2880
aatgattact cctccattac tctattgata caatattgtg catgctagtg ttgtatttct  2940
atacagtagc ttgaaattga ttaacttata ctgtaggtgt tatgtattcc tatgacaaaa  3000
aaaattaagt cttcaaattt tttaaaggtt tttttttttt aatttaattt ttccttttgg  3060
gggtaaagtt tgctctacca aatagtgatt gtaacaaatt gatctgtttt ggatgttgct  3120
atagtgacat gcagttatat attttgtttt taaaaggggg ggagcaaaag aaacaccagt  3180
gttagcttaa tcttaatgtc tggtgtttgt catggtgaaa ttataactat tacagtgttg  3240
gagaacaaca aatatgttct ctgaatgagc ctttgtgctt tttgtcatgt tatgcagtga  3300
actattttta aggtctaatc agtgattatt tttccagctc cgtgtttctc taaggaatta  3360
tttcacacac ggaccatctt tagcagtttc ctcagtgatg gaatatcatg aatgtgagtc  3420
attatgtagc tgtcgtacat tgagcaaata aacttacaga tctgacgcca gtgctcctta  3480
gctt                                                                3484
```

<210> 8852
<211> 1218
<212> DNA
<213> Homo sapiens

<400> 8852

```
catcatgcca ttgcactcca gcctgggcaa cagagtgaga ccaggtcttt ttgaaactct      60
gtctccaaaa aaaaaaaaaa aagaaatcag ccatgcatgg tggtgcacac ctgtagtccc     120
aggtactctg gagattgagg tgggaggatt gcttgagccc agtagtttga ggctgcagtg     180
aggtgtgatc atgcctctgc acttcagctt gggaaacaga gtaagaccat gtctcaaaaa     240
gaacaaaaaa agactttctt atttgtctga tatacctgta tattacctta tgaaagaagc     300
agaaatcccc attttgcaga taagaaaacc aaagcccaga gaaatgaagc ggcttgtccc     360
caagattgct tagcgaatga tggagctggg aaaagcccaa tcttccgtta tttgtggaca     420
catcagaatt cagcatgagt gacagcggtc tgctggatga cagatcgtca gtgcagaatg     480
agacacgagg tgcctgtgtt tattcatgca ggaggagtgt ttgcagaagt gccgggaaca     540
agaggtggtg gagcaaagca tctctttcct ggtttccttc tgctctgaac tcaagtagta     600
cccaccccct attcttcccc tcttttgagt ctgtttcact gagggcacgg ctggtaggag     660
taacgttgtc cagcattaaa acagagcatc agtaatgtct aggaaaatgt taactttaac     720
aacaccacta atcagtttag agaatatttg agcgtgtagc acttgctgat cattcattca     780
gaaaatgaat tgcctgccat aaactaataa gcatgatttg gtttatgttt tgatttaatt     840
atctctgagt agatgctgct tgaagtaatg actgtaatca cttttgccaa gcataccccc     900
cgtttataat ttaagaaaaa aaattttttt tttttgaga tggggccttg ttatgttggc     960
caggctggtc ttgaactcct ggcctcaagc agtcctcccc acctggtgtc tcaaagcact    1020
gggattacag gcatgggcca acatactgaa cataatgatt caaacataga aaaaaaagtc    1080
tcctggtagt tcagttcccc catgccccag gagtttagta caggggtgtc cagtcttttg    1140
gcttccctgg gccacattcc cttgggccac acataaaata cactaacact aacaatagtt    1200
gatgagctaa aaaaaaaa                                                   1218
```


<210> 8853
<211> 158
<212> DNA
<213> Homo sapiens

<400> 8853

```
ggcatggtgc tgggtgtctg taggaccagc tactcgggag gctgaggcag gagaatcact      60
tgagcccaag aggtggaggt tgcagtgagc caagattgca ccactgcctt ccagcctggg     120
caacagagtg agactccgtc tccaaaaaaa aaaaaaaa                             158
```


<210> 8854
<211> 6585
<212> DNA
<213> Homo sapiens

<400> 8854

```
ctcttccctt gcagcctcga agcggaggat ccctgtgtcc cagccgggca tggcgacccc      60
caccagcttt tcgatgacac aagttcagcc cagagccggg gctatggggc ccagcgggca     120
cctggtggcc tgagttatcc tgcagcctct cccacgcccc atgcagcctt cctggctgac     180
ccggtgtcca acatggccat ggcctatggg agcagcctgg ccgcgcaggg caaggagctg     240
gtggataaga cgtgagtgg gcggggctgg tgggagtggg gggatgcacg gggccacagg     300
gcttcagact tgagctctgc ctccccagat cgaccgcttc atccccatca ccaagctcaa     360
gtattacttt gctgtggaca ccatgtatgt gggcagaaag ctgggcctgc tgttcttccc     420
ctacctacac caggtcagca cccccaggggg aatgtgggtc tgcagtgggc ctgtgggggg     480
ctcagggggtg ggggcaggtg catggtggag ccgggagatt cgcctcgagg gaggagggcc     540
tgtagcaggg tgggaggggc ctggctctga gggtcctgcc cgtctcccca tccccgcagg     600
actgggaagt gcagtaccaa caggacaccc cggtggcccc ccgctttgac gtcaatgccc     660
cggacctcta cattccaggt ttcaccctcc cctaccctg cacctcctc tctcttccgg     720
gcctatatgg agcgggtgtg tgggtgcctg gagcccaggg cagttcttc ctctggtgac     780
cagtgtctgt gtgtctgtct cccacagcaa tggctttcat cacctacgtt ttggtggctg     840
```

```
gtcttgcgct ggggacccag gataggtaag ggaggcctgg ggcaggccga ataaggtggg   900
gtttgggagg cccatggttg gtcaggaagg tctcagttcc aaggtctcag ttcccctttc   960
aggacagccc cactttgctc ccagttggcc caagatacag ccctcagggt cactgtcagc  1020
atcaccctcg cctcttccct gtccttccta cccacatgca ttgcgtcacc atccctgtg   1080
ctgggtgacc cttctccatc cacccttcct cttggcctct actaccagac ccatcctcat  1140
cctccctctg tcatcaccag ctccccactg cacccctact ccagcagcag ccaggatggt  1200
cctgtctgag gtgcgggcct ggcccaccct gccccgccct gctatccatg gctcccaatc  1260
aagccccagc tcctcagcct ggcactgccc ctcccgctgc acgctccggt ctattccttt  1320
ccttgggagg gctggcactg tctcctgggg ccttgtcaca tcaactcccc tctgcccagg  1380
agcgtgttcc cctccactac tgccgagtac ctgcacatcc ctgctggctc cattccagta  1440
tcacctcctc cgggaagcct tcctgccccc caggctagat caggcccctc ctcttgctca  1500
catcgccctg ttcttttcct ttatggcact gaacacatct gtcattaact aactggtgag  1560
gccctgggga tgtggcagag gccaagggct ttgtccctga ccagctcctt cctgcaggct  1620
tcagctcggt gtcccctctc ctgggaagcc ctctctgaca cctgtctcct gactgtcagc  1680
acagccccct gtgactccag ccctgcctgc tctgggtgtc actgtctagg gatgggtctg  1740
ccatcctctc tggatgggat ttccgtggga ataggatagc gcgcacatcc atcttggtca  1800
ctgccaggtg tccagcccta cccaacacag agctgtcccc agatgggtgc tgggggtggg  1860
gggtctgaac cagccaacca agtggcgggg ctttgtgcct gcaggttctc cccagacctc  1920
ctgggggctgc aagcgagctc agccctggcc tggctgaccc tggaggtgct ggccatcctg  1980
ctcagcctct atctggtcac tgtcaacacc gacctcacca ccatcgacct ggtggccttc  2040
ttgggctaca aatatgtcgg gtgagtaccc ccgcccttca cgccagcccc agcccttggg  2100
ccttgtcctc acacagcctc ctctccctcc cccaggatga ttggcggggt cctcatgggc  2160
ctgctcttcg ggaagattgg ctactacctg gtgctgggct ggtgctgcgt agccatcttt  2220
gtgttcatgg tgagctgggc tcggggctgg tgaggctgag gcacaggtgc cccggaggca  2280
tccaggcatc caagcagagg atgtcaggtg tggggttcag accagagaca cattgctgaa  2340
ctgaggagcc ctggagtggc tgcccggcct ggggggtcag gagggcttcc tggaagaggg  2400
ggtatcctga gccctggaag aggagacacc agccaggctg ctagaggctg gggatcccca  2460
gcacacaggc tccaggctgg gctctcactc tcattccact ctccttacat gggagccttc  2520
ctgccagaat ttccctggaa ggagattctc tagagccctt cccactggag tccagggggtg  2580
ctggtgaaga gcactggggt ctgcaggctg ggtggacccc aagcttagtt ggatcctggg  2640
caaatcactt cctttcttta aattcagttt ccccttttgc cgggcgcggt ggctcatgct  2700
tgtaatccca gcactttggg aggccgaggc ggtcggatca cgaggtcagg agatcaagac  2760
catcctggct aacacggtga aaccccatct ctactaaaaa tacaaaaaat tagctgggtg  2820
tggtggtgtg tgcctgtagt cccagctact caggaggctg aggcaggaga atcgcttgaa  2880
cccaggaggt ggaggttgca gtgagccgag atcgcacacc tgcgctccag cctgggtgac  2940
agagcgagac tccgtctcaa aaaaaataa aaataaaaaa taaactcagt ttccccttttt  3000
gtaaatagg atgatgatac ttgcacctca aggtgctggg aggattcact gtgagcatgt  3060
gagaagcaga gggcagactg tggtggctgg tgggccaggg cagagccttg gataaacttt  3120
gacttaagtc tcatcattta aaagtttagg ccaagcacgt gactcacatc tgtgatccca  3180
gcactttggc aggctgaggc aggaggatca ctggaggcca ggagcttgat accagcctgg  3240
acaacatagc aagaccccat ctctaaaaaa atataaaaat tagccaggca tagcagtgtg  3300
cacctgtagt cccagctact caggaggctg aggtgggagg atcacttgag tctgggaggt  3360
tgaggctgca gtaagctgag gtcacgccac tgcagtcaag cctggcggac agggtgagac  3420
cctgactttt tttttttttt tttttttttt tttgtgagac agagtctcgc tctgtcggga  3480
agctggagtg cagtggcggg atcttggctc actgcaacct ccgcctcttg ggttcaggag  3540
caagtctcct gcctcagcct cctgagtagc agggactaca ggcactcacc accacgccca  3600
gctaattttt gtattttttag tagagacggg gtttcatcgt gttggccagg atggtctcaa  3660
tctcctgacc tcgtgatccg cccgccttgg cttcccaaag tgctgggatt acaggcgtga  3720
gccaacgcac caggccagag accctgtcct ttaataaaaa taaagatagc atttctggcg  3780
tgtcttcaga aattgccgtg tggccagcat aaggggggc agcatcctgg gccacgtctc  3840
ccacccctc aggccgggtg tccaccggga agtcccctt caccgctcc aagaccttgc  3900
ctggcatttg agtatggaac cttctcagat tttgcccaca gggcccgggg agaagcaaat  3960
cctcaccatg ttaggaggtt tggggaaact gaggccccgg gagcagaaac ctgaggctgc  4020
agagggccag ggacttgtcc ccagctgcct ggggcttcta ggcagaggct ggaagtatgt  4080
ccgggctctc actctggccc agagggctca aggggtaaat cccttggttc ctctctctct  4140
ttcccaccca gatccggacg ctgcggctga agatcttggc agacgcagca gctgaggggg  4200
tcccggtgcg tggggcccgg aaccagctgc gcatgtacct gaccatggcg gtggcggcgg  4260
cgcagcctat gctcatgtac tggctcacct tccaccctggt gcggtgagcg cgcccgctga  4320
acctcccgct gctgctgctg ctgctggggg ccactgtggc cgccgaactc atctcctgcc  4380
tgcaggcccc aaggtccacc ctgtctggcc acaggcaccg cctccatccc atgtcccgcc  4440
cagccccgcc cccaacccaa ggtgctgaga gatctccagc tgcacaggcc accgccccag  4500
```

```
ggcgtggccg ctgttacaga aacaataaac cctgatgggc atggcgtgga cagcctctcc      4560
ttggcctcgc gcacgaatgg gcgggcccag cgctgggcag ggggcaggga gctggggacg      4620
ggccagagta ggcaccacgc tgaccagtcg cagaaggcag agaggaaggt ttaatgagcc      4680
ctgtccaggg cccttcagtg gggagcctcc ttcttcttgc ccttctcctt cttgcccttc      4740
tccttcttct tcactttggg cttcttggcc ttgcccggga tgctctcgtg ctgcttggag      4800
ccagcagcgt gggactgtgg ggccgagggc agggatggga gagaagagat ggttctgggc      4860
tggaagcgag acaggggggac cactccccgc accctccccg ccagccccag tgcggggacg      4920
cctctctggg gtgcagggca cgtgcttggg gacgctggcg agagcccctt accttcacat      4980
ccgtgtccga atcgctggag ctgctgctgg agtcggaaga gctgtggtgt ccttgctgga      5040
tggaggtgcg gcagtgaggc ggcgcccctt acccagcccc ctgaagttgg aggcctaagg      5100
caggaccctg gggtcagggg caaccccagc cttcccgccc ctccgcagcc ggtgatgagg      5160
cgacttacct ttggacccgg acctgcccct tgcctccgac cggccctgaa ctttgtgggg      5220
actgagcttg ggatctcccc cgtggcccgc ccccacaccg ggcttctggg aggtgggctc      5280
cagggctgtg gagagaagtt gggtggttgg tgcaggcagc ttctgggctt gagtccggcc      5340
ccctgcacct ccagtccaca ctccccagga gctcacctgc tcccaggtcg aactccatgg      5400
cggtaagaga agttgggtcc taaggccaag ggcgcctggg ccctgcagag gagcggagca      5460
gggggaggag cgctgagacc tgcccgttgg aggaatgctg agacgcccca cccaacctct      5520
gtcctggtcc tcagccctga ctcattgccc ggcaccaccc aggatttcct ctgtgagaag      5580
tgggggagat ggacaggtga ctgcttccgc cagccttggt gcctcagggg aggccgactg      5640
agggggggctc tgtggatggc attcggggag ctacaggttt cccccaaaag ctcagatgct      5700
cgttcttgaa gagggaggtg ctgcccctgc cttcctgcgt accgcgacaa tacagcttcc      5760
tccgcggcgc tttaacacgc agggcgctgc tgccaggggc gtcccgtgtt ctaactcgct      5820
cccacagccc ctccggcttg gtgagcagcg tctgaggggt gaggggcata gacttggagc      5880
cagcctgctg cactagatgc cagctgtgtc acttagcagc aaggtgacct cagcaaagtt      5940
gttttacctc tgtgcctcag tttcctcatc tgtaaataac agctacccat gggattgatg      6000
tgaaagtcag aggagttaat ttcctagaat ggtgtctggc atgaagtact gataatgtgt      6060
tggtttttta aaaaataaaa ggtaggtgtt ttaggccagt catggtggct cacgcctgta      6120
atcccagctg ctccggaggc tgaggcacga gaatcacttg aacctgggag gcagaggttt      6180
cggtgagcca agatcacacc actgcactcc agcctgggcg acacagtgag actccgtctc      6240
aacaaagaaa aaaatatata gatataaaag ataagtgtca ggccgggcat ggtggctcac      6300
gcccagcact ttgggaggcc gaggcaggtg gatcacctga ggtcaggagt tggagaccag      6360
cctggccaac atggtgaaac cctgtctcta ctaaaaatac aaaatttagc cagccatggt      6420
ggcaggtgcc tgcaatccca gctacttggg aggctgaccc aggataatca cttgaacccg      6480
ggaggcagag gttgcagtga ccgagattg cgccattgca ctccagcctg ggtgatggag      6540
cgaggctcca tctcaaaaaa aaaaaaaaaa aaaaaaaaa aaaaa                       6585


<210> 8855
<211> 246
<212> DNA
<213> Homo sapiens

<400> 8855
gaggcaggca gatcacgagg tcaggaaatc gagaccatcc tggccaactt agtgaaaccc        60
catctctact aaaaatacaa aaaaattagc tgggcatggt ggcaggcgcc tgtaatccca       120
gctactcggg aggctgagac aggagaatgg cgtgaacccg ggaggtggag cttgcagtga      ·180
gccgagatcg caccacggca ctccagcctg ggcgacagag cgagactctg tctcaaaata       240
aataaa                                                                 ·246


<210> 8856
<211> 13646
<212> DNA
<213> Homo sapiens

<400> 8856
gaggagagcg tctgcctgaa tctcatcctg cagaaggtat ggggtgggat gggtgggggct        60
gcggattggc cctgtgggat ggctgacccc tccctgcacg ctgaccgtg tctctcttcca       120
gctggactac atggtgacct gtgcggtgtg cacacgtgct gacggcgggg acattcacat       180
ccataagaag aaatctcagg tgagccctgg cacgagagcc cccagcctcc taactgccag       240
ttcaggctgg gcgtggcaga gagagacaag tcctcctgct tgcttctctg ccctggaggt       300
```

6552

```
gaggggtctg actccagaaa tctgctcagc tcctgggatc ccgtatccca ttcgaggagc      360
acagaaccag cttatccccc acatctcctg gtaggtctct ggctttggac tggctctggg      420
ccgggtggcc tccctatact ggcttggact ggctctgggc ctgtgtgccg ggtggggcct      480
cacttgtcct ccaaatctgc tttcttccag caagtgttcg cgtcccccag taaacacccc      540
atggacagca agggggagga gtccaagatc agctacccca acatcttctt catgattgac      600
agcttcgagg aggtgagctc tgcacagggc ctctctcctt agcttcccct tctcgtgaga      660
tgggtgttag gcgcttctcc ccgcggcctt agccttgcag aaaggcatgg gtggcttgga      720
gccgggaaga gtccggctga ggcagatgtg gctctctctc ttcccagtgt ttgcttgtgg      780
gcaggtgaat ttccccggcg cagcctccgt ttcctcctct gtaaaatcag tgtcatgatc      840
atctgtccta cttactgtca gggctgaaga ctaaaaggct cctgagtggg aggacgcctc      900
ataaactctt gcaagaagca ctgcccgggc gggaggagcc attattaatg ctagtaaatg      960
ataaagaagc gcctccacgc ctgcactgac ttggaatcct aggatgtcaa agagggatgg     1020
ggtttccgga gttatctggg ccaagccttt gttttaaggt ttgggaaacg ggcttgggca     1080
gaaggagact caccgagaaa cacagggcac tgggagggcg gggaggagc cggtcgcagc       1140
tcactccctg ctctgcccat ttgtgtctct cctctgttga ggccctggtc ggggtccttg     1200
tgcgcatcca aggtgctcag ggccctgagg acttaggagg aaggcgtggg cgtctgcagg     1260
aaaatcgcag gctcagggag gtcatgtccc ctccccaggc acacgtagct cctagagggc     1320
agagctgaga tttgcgtcta agtctttgtg gcctcggagc tcacagtctg tgcaccaggt     1380
cctgggagca atgactcggg aaggtggcag gatggggcct gtggcacctt agtctggtgt     1440
tgtcacccca ggtgggcagt caccctgcca ccacactgag cctttggcca cacaggagcc     1500
tcaaagatgt ggcaggcagg gctgggcacc cctaggcggt gtggagggc ccagacggtg       1560
gctgacggtc ctggtgaacc gtgatgaggg tgtgcgtctt ctgccagtcc cagagtctcc     1620
gtaagcgtcc ctgtcctccc ctgctgctca gccctgccc cagtgtgagg ctgttcttgt       1680
cctgtggggc tcggagggca tggggccaca ggagtgtgtg acagccggtt gtccctgca       1740
aaatggggtt ttctgagcag ccctccctgc cagttgggcc aggctgtggt gtgggcggtg     1800
ggagctgatg gtcacgtccc tgtctctttg tgtcctggcc caggtgttca gcgacatgac     1860
cgtagggaa ggagagatgg tctgtgtgga ctggtggct agtgacaaaa ccaacacgtt       1920
ccaggggtc atctttcagg gctccatccg ctacgaggcg ctcaagaagg tgtatgacaa       1980
ccgggtgagt gcggggcggc ctcacgggtg ttcttctggg cccggggacg gcggctccac     2040
agcccaccgt ggtccatacc atggggcccc ccagcctgct tgtgcatggt agcggccgcc     2100
aggggtacct gcagcccctc cgggctcctt ctaggcgctc cctggtcctc ttaacgtcat     2160
tcttcatggt cggcctcagc ccatgcgggc cacttgcctt catctgaaat gtgagcggga     2220
acttcctcct cagtctctag ttccctggga agtgatggct gatggtgtcg ctgtcacctc     2280
ctcactgtca cttgcttcct gcgactggcc ctgggagtgc tccgagtcgc ccccaactaa     2340
gcaagcagat gtgggcaggc ccctctcccc cagcgggcac catccgcagc cagccttgct     2400
gccagcctgg ggccctgtcc tcagcctggt ccgtggttca tggggcggtg ggaggggcac     2460
caggaggggc accaggcaga gatgtgggtc cattccagct gccccgcctg ccagctcaga     2520
cgctccctcc cgggcagccc ccgctccttg agggatggtc gccctggctg ttcatgtcct     2580
ggggaggggc cccatggagc catcgccacc tccctgactc aggctgcccc gcgccggccc      2640
ccaggtgagc gtggccgccc gcatggcaca gaagatgtcg tttggcttct acaagtacag     2700
caacatggag tttgtgcgca tgaagggccc ccagggcaag ggccacgccg agatggcggt     2760
cagccgagtg tctacaggtg acacatcccc ctgtgggact gaagaggact ccagcccagc     2820
ttcgcccatg cacgagcggg taagggctgc acagctgggg gcggggctc ccatccgtca       2880
agttcacttt ccaccgtctc ccccgtgctc acggcccct ggggacatag gtgttgtcat       2940
ccccaaccac cagtgcgcag gccgaggtgc cgagcgtgcg gaggcccgga ccacccagcc     3000
cttctctttg cctagcggtt tgtaggaggc actgccgcag gggaggcgtt cctgccttgc     3060
agacctggag ggctgtgcct ggccaaggtc acaccgcagg ctggtgctgg ccagagctc       3120
tttctgcctc cctgagatgc cacaaagcca ggctgagtcc acagagccag tgggcagaag     3180
agactggctg gggacccagg cccggccctg cgcctgcct gggtggacct gctgggtgag       3240
cgtgggcacg tggccggcct tcccggtga gtcagatggg gatgatggtg actgagggtc       3300
agccagcgca tgcagaggcc taggccaccc agctctttgc cccgcggttt gtaggaggtt     3360
ctgctgcagg agaggcgttc ctgcctcgca cagccggaaa ccagacttgc cagcttgccc     3420
caggtcacaa ggtctcttgg gatagcactg ggcttggggc cctgctctgc ctaggccact     3480
ctccttcccc agggcgggag gctgaggtca gcagcagctt tgttcccaga agcctttggt     3540
ggggcacagg caggagaagg tctccagccc actggctgct ttgctctacc tggttcttcc     3600
agagggactg cccagagctg tagttcttgg aagagtacag gtgtgctggg cagggggtg       3660
cccttggcac aggtccaggg gcagtcttgc ccagccattg tccaggagag acgccaccca     3720
cagccagaat cctgctctgc tgctctcata accttgggtg tgtctctttt cctctccaag     3780
cctcagtttt ctcatctaga aacagggcac gaggatacct gctccttcag tatttgggag     3840
gctttgagga atccggggct tggccctcag gaggattccc aggtggcagc tgcagtagtt     3900
gctgttgacc tacttggaaa gcagaggcgt gggaatgtaa acgatgcatt accgcaggca     3960
```

6553

```
tgcctgagat gagggagtgt gcgtttgtta tacttttagt tcgagaaaga tctgaatcat   4020
gcatatctcc gggtggtcag atgttggttt tctttctctt ctgtatatct ttttttgggg   4080
gggaggtatc ttctgcaatg aatgtgtttt gcaagccaaa gacagcaagt gctatttttt   4140
gcaaagatgg gtgagaattc caggcagggg cctctcttgt ctttggaatg aggtggttta   4200
tatttctgag tttgtttccg agataaaggg cctggttctt ctccctggtc ctaaattatg   4260
ccctgggact ctgacaaaat gtgtgtgtga aagtccttac gaagatgtgg cccgagctct   4320
gggctggaca aacccgggtg ccacctccag ccacagcctg agggctgagt gactacaggt   4380
cactagacct gcctgagcct tggttttccc atctgtccag cgggagtggc tgtgaggggt   4440
gtgaaagtcc ctggtgcctt agcagctggg cagccctggg attcaggagg agggatgtgc   4500
tagggtcaca cagggtcagc agcagggctg gccctgggg actgccgcct gtgcgcctgc   4560
tattacctgt ctccttctct ggcgggggtcg tctggagcca gtgcgtgaca catgctgact   4620
ctgtgtattg tggttgctgc tgtttgtttc ttttatcttt taaaaacctt ccccggcttg   4680
tgggaacacc gtctggagcc cagcagctgc caggactttg gtggatgtcg gagccgtgac   4740
gaggaggctg acggggctcc cgaagtctca gtcccagctc atcctgctcc tcagattatt   4800
gttggcatgg ggaggaggga ggagatgggc caagttccct ctggctggaa cgcccttccc   4860
cccttcttc acctggcgaa ctcctactcg tccttcaaga cccagctcca gcggcatctc   4920
ctccaggaag ccttccctga tttcccaggc tgtggatccc ttttgcctct gtgcttcatg   4980
tatcctgtgc ttctctttct ctgtctccac agccagcatg ctgtctatgg ttgtcactct   5040
ctgagtctgt caccccagca gactgtgagc tccttgaggg cagggacctg caatgtgcct   5100
gtctgtcctt agtgctgtgc ctgcctggcc ctgagtgggt gtgaatgttt ggtgaacaga   5160
accaaacgtg attagaagtg gggagaagac agaggcatag agctacttag cacagtattt   5220
cctgtgaagg gtgctggaa tgagagggat ggggccacgt cagccctgag aagtaggatg   5280
aggagcgtgg ccctgggga cagaagacag ggctgctgcc gtcctgcttg gtgaccacag   5340
gcaagccagg gtctcggtcc ctgccttagt ttccccatgt gtcagatggg ctgacgctag   5400
cccctgtctc acggagctgg aggctcagag ggtctgtgtg tggggccagt gctcactcag   5460
cgtcagcagc tgttgttact ttgtgcttga acaccccta cccactgttt gaggcccaga   5520
ggagggggt ctttctgcca tttgcggcag cagcctggcc cctcctcggg tagcactggt   5580
ggccaggtgt cctgctggcc cctgggctgg aacgcatctt ccagtctcta ggccccacct   5640
agcacgggcc ggctgggcct gggtcctcct gggccagcgg cctcttccct gggagctgtg   5700
tcaggttgtt tgagggtggg ataggagggg cgttgggacc cccgggggagg gggctgttct   5760
gctactctgg tgactttggc tgcttgttcc caggtgacct ccttcagcac acccccacc   5820
ccagaacgga acaaccggcc tgccttcttc tccccatccc tcaagaggaa ggtgccccgg   5880
aaccggatcg ctgagatgaa gaagtcgcac tcggccaacg acagcgagga gttcttccgg   5940
gaggacgacg gtggaggtga ccccccactc cgtgccctag ggtccccgtg cccttcagtc   6000
tcttcttgat ccagaccagt cattcattca tttattcatt cattcatttg ttcattcagc   6060
agcacttaga gagtgggtgc catgtgccag gcagccctcc aggagctgag gggtagagct   6120
ggggacaggc agaaatggct gcctctgggg gtcccgtcct ggtgggctca ggcgtctcct   6180
tggcagagtg cttggagcgc agatgtgcag cagttggtca gtttcagggg atttcccacc   6240
tttctaaggc ttttcagcct gcttaaggaa gaaagcggat gggtgatctg atggctccgc   6300
acacacgggg tgtggcggga gagaggaggg cttccctccc ttgcgctgcc ttgggccagc   6360
tcgccctcag ggtgaggcct ggccctcctg gctctgtgca gcctcccaga accacgtgct   6420
ctttggtgac acagtcgcca cctcgtgcag cctaccccgc gggccttcct gtgccctgt   6480
cccctggact ccggttgtct gtatctgggt gttaccatgc cccttagtcc tgcccaggca   6540
cagtctgcac tctctcctga gcacccgtgc ctgctccctg tcctcgctca gtgaccttcc   6600
agaatacagg agttgttccc agagccccca gggaggcctc tgaggggttt taagcaaggg   6660
agtgacacaa tcagattagc atatttaaaa tgccactcag cagtctctgt gggaaatggc   6720
tcctggggac aggcgtggcc gtcacagaca ggttgggaag ttctgccatg ctctgctggc   6780
atggaccacg tgccttcctc actgtcatcc tcaggaccca gcgggcgcct ggctccgcac   6840
tgtgtgcgtg tctgttgagt gtatggaagt gaaggattgg ccaggcacag tggctcaccc   6900
ctgtaattcc agcacttagc gagaccgagg cgggtggatc acctgaggtc aggagttcga   6960
gaccagcctg gccaacatgg tgaaaccctg tctctactaa aaatacaaaa aattagccgg   7020
gcatggtggt gggcgcctgt aatcccagct actcaggagg ctgaggcagg agaatctctt   7080
gaacctggga ggcagaggtt gcggtgagcc gagatcgtgc cactgcactc gagcctgggc   7140
aagagtgaga ttccatctca aacaaacaa aaaaaaacga cgtgaaggat tcgctgacaa   7200
ctcccactga gcacctcccc cagcagggag cagggctgca gcattgatca gaagaggtgg   7260
cagtctttgt cctgaccact gggaccaaga agcaggggtg tcccacctgc tcaaggccct   7320
ggcctgggtc agggactcca gcactggcct cgacctgctc ttgtgtgaac ttgggcaagc   7380
cccttcccca cctgggcccg ttccgaatc agtaagaagt actgatcact gccctagtct   7440
gcctctctgg ggcaggttcc cccagcctgg accgcaggac tgggtaatgg tgcaggtcgg   7500
ctcagccttg ctgctcccat gctctgcagg tggcggtgcc tagttccagg gacagggcct   7560
gcagaagcag agaattacac agtgtgtgtg ccagaacccc cggaggagac taagcttgtg   7620
```

6554

```
acagagaaga gagagatgag ggggggtggcc aaagtcttcc tggagttgga ggcctgggtc   7680
tgggccagag gaagcaggga ggggtgttac aggcgaggag gcagcagctc tggagcgtgt   7740
gggtgctggt gtggggggtgt tggtaaggag cgtcctggcc tcagcagagt ttggcctcag   7800
cctggactgg gagctggcct cctgctgctc ccgccgcgtc ccatgctgtg ggggccttga   7860
cctggccttc tttcctccag ccgatctgca caatgcaacc aacctgcggt ctcggtccct   7920
gtcgggcaca ggacggtccc tggtcgggtc ctggctgaag ctgaacagag cagatggaaa   7980
cttccttctc tatgcacact taacctacgt cacgttgccg ctgcatcgga ttttaacagg   8040
taatgctggc ggatgtgggg aagcagccgc accttctcac agccagctct gcctccaggg   8100
ccttggtact tgtgagccac ccggagtcat cccgccctgt cctgtcggtt ggttgggttt   8160
ctttgcaggg ctcttggcct ctttgtctca gactttgggt ggagccgtag ctttcccaga   8220
gctgaagtcc tccctttgtt cacctttctg gcgcacctgc tgtcccctct tgagtggcca   8280
cagatgccca ggtgtgtgtt actcacgggc gagggaggc tctcaggcca cctcgctgac   8340
ccaggcctgc agcagctgtg acaggcagtg gctctggccc ccacaccagc ttgcacctga   8400
ggccctgcag ggtgtgccgt tgctgcgagc ccatttccca gtctgcaggg tgaggatggt   8460
ggagacacgt ctcctctgca gtctgtgagg cctggagagg agatgcatga gtggctgagg   8520
cgggcttcct tcagaagtgg cactgccgtg accatagcac tcaccgctgt tgagggttac   8580
tgtttcacct gcttccctcc tgccggccct agacatcctg gaagttcggc agaagcccat   8640
cctgatgacc tagccgcgtg cggagcctgc gcagagcccc ggccgggccc agccctcgga   8700
gtgctgccaa gtgcctacct gtccaccgcc accggggtct gcgatggcac gccagtgctg   8760
gagccgcagc caggcgaggc cactcgactc ccgggggcgg ggccgactcc acgaacacca   8820
gcccaaactg aagtgcctct tccctcccct gctggcgctg ctccgccctg tgcccccgc   8880
ccatcgcccc ccacccatct ctggagagcc ctctgcaccc aaagaggact agagatgccg   8940
agcggccatg agagagagcg gaaggagcag ctgatgccca gagcggggcc agagcggcgg   9000
gtctatgttc acgtccccccc agcagcaggc ggaaccaccc agccagggca ctcagtgcat   9060
tggactgtcc acatgttctt gaggaaagcc ggtggaagat tctggaatgc cgtgcggatg   9120
aacttcagca cccgagtcag tcccagctca tcctccccag tttaccactt tgttctaata   9180
ggagatggga acacgagaag tttgatggct ttgccctggg ctgggaatac ctcacccacg   9240
cccagttcca gaaaggcctc cagctgagca gacggccccg atcccgccag aacggccttt   9300
tgcttccagc caaagaacac cgccaacacg cacacctcca acctgggaca tcccacgctg   9360
ggcctcgcac ggaggaacct gcagaatttg gattctgagg gtagtcggga ggcctcggta   9420
gccaggcaga acaggatatc tgccaaaggg tgtctgatgt ggggtggggc tggcatcctc   9480
ccaggaaggt tctaggtggg accccgtctt ctggggggcgg gggtgtcttt tcatcttccc   9540
tggtttccta gaactcactt cctttgacgg cgtgtgttgg tcccatctct cagaccagct   9600
cactgaggca gaggagttgc tcagaggctc acatgggcac ccccattggt tcgtgtgagc   9660
agctgcccag ccccaggcct gccctcggcc tggtccagca tgaaggcgtt tccatctgca   9720
aggatgcacg gtaccctccc cgagagcagg cctgtcccct acccaactgg gaataaactg   9780
gaagctgggt ctctttgttg ctatgttttt ttgtttgaag ttcccaggaa tatttgaggg   9840
gttccggtga tgtgtttagg gatcttctct gtgggggaaa aggaagagga gggtcttgtt   9900
ctcccatctg tttattcttt gggctctggg aacaggggac tactttgggg ctttctccag   9960
acttttgtat gttgttatta aaagcgagct attgcatttc attctgcctc agtttgccca  10020
cctgtgaaat ggggctgata ccacctacct cactgaagtc ccagggttca agtgtgtggc  10080
tgggtcaggg cgtggtcacc cgtcattctg cataggtcgg gttggatgtt agactcctgg  10140
gatgccctcc tcccccctcgc cctttgtaat aacctaatct gagaccgtgc ttggtggggg  10200
gatgtgaact ttctctctcc cccagcagtg tctgctcagg cctgacagct cagctctgca  10260
cgatttcatg ttcctaaacc catgtcttag ggcagcacag agccaggtca tgtcatgccc  10320
caaagtgtgg ggacagagcc tcagggagcc ccgagcatgg tccagcccca tttgagtgct  10380
ctccggggat gccaaatgct gcttccaagt ttgagtccat gtggctaaaa tacacccatt  10440
tcttcaggaa ctcttcccct ggttgttctg gggatcttgg gagaaacaca gccctgacag  10500
ctcgtccgtg ggaagatgag gcagtccagg ttgtgaggag cacagcggcc cgccctctgt  10560
tctcagaggt gaggggcggg agaaggttgt ctcctctggg gccagcattt ggccaagctc  10620
ggaggcttgg ccagcactgc tggatggctc agagcaagct gggctccccg tctgtaagat  10680
ggcaaaaatg ctgcccccct cacagggtga ccatgaggac cagtcacagt gatgtgtgaa  10740
agggctcgct ggtcacagaa acgtgtacaa atcatgctat tttagagatc agccctcaat  10800
ttgtaaggca tgtgaacagg gcacgcggtg ggctggtggt ttcatagccg acacacagcg  10860
cctaccatgt gcagctgcct gtccgacccc atcttacaga cgagaaaacc agcacacagg  10920
caccaaggaa ctgtccggaa ctaacagcag gggccggcga tgggagtcaa acccaggcac  10980
gcggcctggc ctgcatgctg agccacatgg tgctgtccgg acagatggac agacactcgg  11040
tggagtctgc ctttctcagg ccctaaatcc ctctccaaag ggtacttgcg atgccggatt  11100
taaaacttgc tcagagccac ttagccactt gagaaccaga cagtaaggtg ttactcccag  11160
gtttgttttt ccaaagtaac agatgacatg tggaataaag taatagagta acaagtggca  11220
gggccagaac cagggtcccc aaagtcctgg tgttggcaca tttgtacttc ttgtaagacc  11280
```

6555

```
atctttaatt tttctgggaa cacacctgcc ttttgtgtaa tgcggggaag actaatgcat  11340
ggtgacacct agttttcctc aacaggacac ttgatcccaa aaccccttta agaccttagg  11400
tttcctcagc ggaaaactgt actttaatcc caaaccccct ttaagacata ttggggctgg  11460
gcgcagtggc tcacgcctgt aatcccagca ctttgggagg ctgagatggg tggatcacct  11520
gagatcagga gttcaagacc agcctgacta acatggctgaa accccatgtc tactaaagat  11580
agaaaaatta gctggacatg gtggcaggca cctgtaatcc cagctactcg gaaggctgag  11640
gaaggagaat cacttgaacc tagtaggcag aggttgcagt gagccgagat cacgccattg  11700
cattctagcc tgggcaacga gagcgaaact ctgtctcaaa aaaaaaaaa aaaaaaaaa  11760
aaaaaaaaa aaaaaagata cattggtctt taaacccaaa ccccctttaa ggcatgttgg  11820
tctcaagggg atttgggatt gaagcacagc tttctgttga ggaaacctag gtgtcacttt  11880
ttagaacatt aaaaagaaag ttgtaggggtg ggctttttcca tttaaaggaa tgtgatgatc  11940
ctaggttctg atgagtgata ggtggtctcc gtttataccc tttcttcttt tggcacctgt  12000
aagttccggt agtggccatc ttacattctc atgtcctgct ggaagtgcct agttgcctgc  12060
aaagccagct aaggcttatt atttcaaaag aagattattt aaaacatgag tgacaggtag  12120
tcagaagaga acaaaaggac gcaagatact ctatagccaa gtcagcttgg aggcaggatg  12180
ggttgctgag tgaagtcgcc gctcactttt ggattcttat ggactgtgag ttagtcttcc  12240
ctctacacgg agtcacagga agggtataaa tgcatgttcc tgaggtgccc tcccccaaag  12300
aatgtacctg cactcaaacc aggatctgtt tttgctgttt taatcataaa tagactagtt  12360
agtagaagac ttttgaagaa caaagtaaaa cttttttttt tcattaaaag atgtcccaga  12420
ggaaaggccc tgtgcagcca gtatattcta atgactgcct ggaccatgtc ctaatatggt  12480
ggttttaagt tgttggccaa aatcctttaa agacatacga aacatctgcc aacttttttag  12540
cgaacttaac aggtttcact gacgttttcc tcaattttttg aatttaggtg ggatttgctt  12600
tcatgtcctg tttcaaaaac caagtgtctc ttgacagccc actggttctt cctgtcctct  12660
tgctctagtc tgtatcagaa agcagaatga ctgtacttttt gtttacaaa caaccacctg  12720
ataggacgga cactccacga gataaggaaa ggcacgtgcc cttgagcttg aatggaagca  12780
gcctctggag ggggcagcca ctgcccttcg agggagagca gctcttcagc agtggccaga  12840
gtgccacgtg actctgcaga tgacccctgg gagccgggtg atgggcacct gctggggctt  12900
ttgtttttttc tttttcactg gctggcttga tcctcagtgg caaaaggacc cctgagcccc  12960
ttctccgagc cctggagcac tcctcgggac accgagtggc ctcagggctg ggttcagagc  13020
tcctcccgca gggggagcct cagaagtgga ggcagctgct gatgggtgag tttacaactt  13080
cttatcctgc ctaaggcgag taggcgtttt tattccgttt ccagtccttg agctcagcag  13140
atcaaaataa cagtgaccct gcaacccccac agagcccgcg acacgctcgc tttcttcccc  13200
gccctgcccc tttagtcccc gctctggaag gccaggcagt ttaggtgtaa ataggtatct  13260
tttatggttt ccaaatgaat tatttgtgtg agagtaatta aatctgtaag aaaacctgtt  13320
gagattcttc actatgaatt atgacttcta caacatgtat tttagcaaaa acacgatgct  13380
ggcctccact ggatagctca gtatgctgat tgccagtgat agttctgtac gcgttaccaa  13440
cagcgtcttt attaaccctc ttccacatcc agtggaaatc attgctaggc ggtatttgtt  13500
ggttggctgt tagctttgct ttatgatttc atgtttcttt taaaggttgt tttgcatgtt  13560
gaatattaaa ttttttttttt ctgtgtcttc ctctaatctt tttctgtaat gggaatttca  13620
gggtaaatac agatattata gcaaag                                        13646
```

<210> 8857
<211> 7770
<212> DNA
<213> Homo sapiens

<400> 8857

```
ccggaaccgg atcgctgaga tgaagaagtc gcactcggcc aacgacagcg aggagttctt   60
ccgggaggac gacggtggag gtgacccccc actccgtgcc ctagggtccc cgtgcccttc  120
agtctcttct tgatccagac cagtcattca ttcatttatt cattcattca tttgttcatt  180
cagcagcact tagagagtgg gtgccatgtg ccaggcagcc ctccaggagc tgaggggtag  240
agctggggac aggcagaaat ggctgcctct ggggggtcccg tcctggtggg ctcaggcgtc  300
tccttggcag agtgcttgga gcgcagatgt gcagcagttg gtcagtttca ggggatttcc  360
cacctttcta aggcttttca gcctgcttaa ggaagaaagc ggatgggtga tctgatggct  420
ccgcacacac ggggtgtggc gggagagagg agggcttccc tcccttgcgc tgccttgggc  480
cagctcgccc tcagggtgag gcctggccct cctggctctg tgcagcctcc cagaaccacg  540
tgctctttgg tgacacagtc gccacctcgt gcagcctacc cccggggcct tcctgtgccc  600
ctgtcccctg gactccggtt gtctgtatct gggtgttacc atgccccttga gtcctgccca  660
ggcacagtct gcactctctc ctgagcaccc gtgcctgctc cctgtcctcg ctcagtgacc  720
ttccagaata caggagttgt tcccagagcc cccagggagg cctctgaggg gtttttaagca  780
```

6556

```
agggagtgac acaatcagat tagcatattt aaaatgccac tcagcagtct ctgtgggaaa    840
tggctcctgg ggacaggcgt ggccgtcaca gacaggttgg gaagttctgc catgctctgc    900
tggcatggac cacgtgcctt cctcactgtc atcctcagga cccagcgggc gcctggctcc    960
gcactgtgtg cgtgtctgtt gagtgtatgg aagtgaagga ttggccaggc acagtggctc   1020
acccctgtaa ttccagcact tagcgagacc gaggcgggtg gatcacctga ggtcaggagt   1080
tcgagaccag cctggccaac atggtgaaac cctgtctcta ctaaaaatac aaaaaattag   1140
ccgggcatgg tggtgggcgc ctgtaatccc agctactcag gaggctgagg caggagaatc   1200
tcttgaacct gggaggcaga ggttgcggtg agccgagatc gtgccactgc actcgagcct   1260
gggcaagagt gagattccat ctcaaaacaa acaaaaaaaa acgacgtgaa ggattcgctg   1320
acaactccca ctgagcacct cccccagcag ggagcagggc tgcagcattg atcagaagag   1380
gtggcagtct ttgtcctgac cactgggacc aagaacaggg gtgtcccacc tgctcaaggc   1440
cctggcctgg gtcagggact ccagcactgg cctcgacctg ctcttgtgtg aacttgggca   1500
agccccttcc ccacctgggc ccgttcccga atcagtaaga agtactgatc actgccctag   1560
tctgcctctc tggggcaggt tcccccaggc ctagactgca ggactgggta atggtgcagg   1620
tcggctcagc cttgctgctc ccatgctctg caggtggcgg tgcctagttc cagggacagg   1680
gcctgcagaa gcagagaatt acacagtgtg tgtgccaaga cccccggagg agactaagct   1740
tgtgacagag aagagagaga tgagggggggt ggccaaagtc ttcctggagt tggaggcctg   1800
ggtctgggcc agaggaagca gggagggggtg ttacaggcga ggaggcagca gctctggagc   1860
gtgtgggtgc tggtgtgggg gtgttggtaa ggagcgtcct ggcctcagca gagtttggcc   1920
tcagcctgga ctgggagctg gcctcctgct gctcccgccg cgtcccatgc tgtgggggcc   1980
ttgacctggc cttctttcct ccagccgatc tgcacaatgc aaccaacctg cggtctcggt   2040
ccctgtcggg cacaggacgg tccctggtcg ggtcctggct gaagctgaac agagcagatg   2100
gaaacttcct tctctatgca cacttaacct acgtcacgtt gccgctgcat cggatttttaa   2160
caggtaatgc tggcggatgt ggggaagcag ccgcaccttc tcacagccag ctctgcctcc   2220
agggccttgg tacttgtgag ccacccggag tcatcccgcc ctgtcctgtc ggttggttgg   2280
gtttctttgc agggctcttg gcctctttgt ctcagacttt gggtggagcc gtagctttcc   2340
cagagctgaa gtcctccctt tgttcacctt tctggcgcac ctgctgtccc ctcttgagtg   2400
gccacagatg cccaggtgtg tgttactcac gggcgagggg aggctctcag gccacctcgc   2460
tgacccaggc ctgcagcagc tgtgacaggc agtggctctg gcccccacac cagcttgcac   2520
ctgaggccct gcagggtgtg ccgttgctgc gagcccattt cccagtctgc agggtgagga   2580
tggtggagac acgtctcctc tgcagtctgt gaggcctgga gaggagatgc atgagtggct   2640
gaggcgggct tccttcagaa gtggcactgc cgtgaccata gcactcaccg ctgttgaggg   2700
ttactgtttc acctgcttcc ctcctgccgg ccctagacat cctggaagtt cggcagaagc   2760
ccatcctgat gacctagccg cgtgcggagc ctgcgcagag ccccggccgg gcccagccct   2820
cggagtgctg ccaagtgcct acctgtccac cgccaccggg gtctgcgatg gcacgccagt   2880
gctggagccg cagccaggcg aggccactcg actcccgggg cggggccga ctccacgaac   2940
accagcccaa actgaagtgc ctcttccctc ccctgctggc gctgctccgc cctgtgcccc   3000
ccgcccatcg ccccccaccc atctctggag agccctctgc acccaaagag gactagagat   3060
gccgagcggc catgagagag agcggaagga gcagctgatg cccagagcgg ggccagagcg   3120
gcgggtctat gttcacgtcc ccccagcagc aggcggaacc acccagccag ggcactcagt   3180
gcattggact gtccacatgt tcttgaggaa agccggtgga agattctgga atgccgtgcg   3240
gatgaacttc agcacccgag tcagtcccag ctcatcctcc ccagtttacc actttgttct   3300
aataggagat gggaacacga gaagtttgat ggctttgccc tgggctggga atacctcacc   3360
cacgcccagt tccagaaagg cctccagctg agcagacggc cccgatcccg ccagaacggc   3420
cttttgcttc cagccaaaga acaccgccaa cacgcacacc tccaacctgg gacatcccac   3480
gctgggcctc gcacggagga acctgcagaa tttggattct gagggtagtc gggaggcctc   3540
ggtagccagg cagaacagga tatctgccaa agggtgtctg atgtggggtg gggctggcat   3600
cctcccagga aggttctagg tgggaccccg tcttctgggg gcgggggtgt cttttcatct   3660
tccctggttt cctagaactc acttcctttg acggcgtgtg ttggtcccat ctctcagacc   3720
agctcactga ggcagaggag ttgctcagag gctcacatgg gcaccccat tggttcgtgt   3780
gagcagctgc ccagccccag gcctgccctc ggcctggtcc agcatgaagg cgtttccatc   3840
tgcaaggatg cacggtaccc tccccgagag caggcctgtc ccctacccaa ctgggaataa   3900
actggaagct gggtctcttt gttgctatgt tttttgttt gaagttccca ggaatatttg   3960
aggggttccg gtgatgtgtt tagggatctt ctctgtgggg gaaaaggaag aggagggtct   4020
tgttctccca tctgtttatt ctttgggctc tgggaacagg ggactacttt ggggctttct   4080
ccagactttt gtatgttgtt attaaaagcg agctattgca tttcattctg cctcagtttg   4140
cccacctgtg aaatggggct gataccacct acctcactga agtcccaggg ttcaagtgtg   4200
tggctgggtc agggcgtggt cacccgtcat tctgcatagg tcgggttgga tgttagactc   4260
ctgggatgcc ctcctccccc tcgccctttg taataaccta atctgagacc gtgcttggtg   4320
gggggatgtg aacttctct ctccccagc agtgtctgct caggcctgac agctcagctc   4380
tgcacgattt catgttccta aacccatgtc ttagggcagc acagagccag gtcatgtcat   4440
```

6557

```
gccccaaagt gtggggacag agcctcaggg agccccgagc atggtccagc cccatttgag 4500
tgctctccgg ggatgccaaa tgctgcttcc aagtttgagt ccatgtggct aaaatacacc 4560
catttcttca ggaactcttc ccctggttgt tctggggatc ttgggagaaa cacagccctg 4620
acagctcgtc cgtgggaaga tgaggcagtc caggttgtga ggagcacagc ggcccgccct 4680
ctgttctcag aggtgagggg cgggagaagg ttgtctcctc tggggccagc atttggccaa 4740
gctcggaggc ttggccagca ctgctggatg gctcagagca agctgggctc cccgtctgta 4800
agatggcaaa aatgctgccc ccctcacagg gtgaccatga ggaccagtca cagtgatgtg 4860
tgaaagggct cgctggtcac agaaacgtgt acaaatcatg ctattttaga gatcagccct 4920
caatttgtaa ggcatgtgaa cagggcacgc ggtgggctgg tggtttcata gccgacacac 4980
agcgcctacc atgtgcagct gcctgtccga ccccatctta cagacgagaa aaccagcaca 5040
caggcaccaa ggaactgtcc ggaactaaca gcaggggccg gcgatgggag tcaaacccag 5100
gcacgcggcc tggcctgcat gctgagccac atggtgctgt ccggacagat ggacagacac 5160
tcggtggagt ctgcctttct caggccctaa atccctctcc aaagggtact tgcgatgccg 5220
gatttaaaac ttgctcagag ccacttagcc acttgagaac cagacagtaa ggtgttactc 5280
ccaggtttgt tttccaaag taacagatga catgtggaat aaagtaatag agtaacaagt 5340
ggcagggcca gaaccagggt ccccaaagtc ctggtgttgg cacatttgta cttcttgtaa 5400
gaccatcttt aattttctg ggaacacacc tgccttttgt gtaatgcggg gaagactaat 5460
gcatggtgac acctagtttt cctcaacagg acacttgatc ccaaaacccc tttaagacct 5520
taggtttcct cagcggaaaa ctgtacttta atcccaaacc ccctttaaga catattgggg 5580
ctgggcgcag tggctcacgc ctgtaatccc agcactttgg gaggctgaga tgggtggatc 5640
acctgagatc aggagttcaa gaccagcctg actaacatgc tgaaacccca tgtctactaa 5700
agatagaaaa attagctgga catggtggca ggcacctgta atcccagcta ctcggaaggc 5760
tgaggaagga gaatcacttg aacctagtag gcagaggttg cagtgagccg agatccccc 5820
attgcatttt agcctgggca acgagagcga aattttgtct caaaaaaaaa aaaaaaaaa 5880
aaaaaaaaaa aaaaaaaaaa gatacattgg tctttaaacc caaacccct ttaaggcatg 5940
ttggtctcaa ggggatttgg gattgaagca cagctttctg ttgaggaaac ctaggtgtca 6000
cttttagaa cattaaaaag aaagttgtag ggtgggcttt tccatttaaa ggaatgtgat 6060
gatcctaggt tctgatgagt gataggtggt ctccgtttat accctttctt cttttggcac 6120
ctgtaagttc cggtagtggc catcttacat tctcatgtcc tgctggaagt gcctagttgc 6180
ctgcaaagcc agctaaggct tattatttca aaagaagatt atttaaaaca tgagtgacag 6240
gtagtcagaa gagaacaaaa ggacgcaaga tactctatag ccaagtcagc ttggaggcag .6300
gatgggttgc tgagtgaagt cgccgctcac ttttggattc ttatggactg tgagttagtc 6360
ttccctctac acggagtcac aggaagggta taaatgcatg ttcctgaggt gccctccccc 6420
aaagaatgta cctgcactca aaccaggatc tgtttttgct gtttaatca taaatagact 6480
agttagtaga agactttga agaacaaagt aaaactttt tttttcatta aaagatgtcc 6540
cagaggaaag gccctgtgca gccagtatat tctaatgact gcctggacca tgtcctaata 6600
tggtggtttt aagttgttgg ccaaaatcct ttaaagacat acgaaacatc tgccaacttt 6660
ttagcgaact taacaggttt cactgacgtt ttcctcaatt tttgaattta ggtgggattt 6720
gctttcatgt cctgtttcaa aaaccaagtg tctcttgaca gcccactggt tcttcctgtc 6780
ctcttgctct agtctgtatc agaaagcaga atgactgtac ttttgtttta caaacaacca 6840
cctgatagga cggacactcc acgagataag gaaaggcacg tgcccttgag cttgaatgga 6900
agcagcctct ggaggggca gccactgccc ttcgagggag agcagctctt cagcagtggc 6960
cagagtgcca cgtgactctg cagatgaccc ctgggagccg ggtgatgggc acctgctggg 7020
gctttgttt tttcttttc actggctggc ttgatcctca gtggcaaaag gacccctgag 7080
cccttctcc gagccctgga gcactcctcg ggacaccgag tggcctcagg gctgggttca 7140
gagctcctcc cgcaggggga gcctcagaag tggaggcagc tgctgatggg tgagtttaca 7200
acttcttatc ctgcctaagg cgagtaggcg ttttattcc gtttccagtc cttgagctca 7260
gcagatcaaa ataacagtga ccctgcaacc ccacagagcc cgcgacacgc tcgctttctt 7320
ccccgccctg cccctttagt ccccgctctg gaaggccagg cagtttaggt gtaaataggt 7380
atcttttatg gtttccaaat gaattatttg tgtgagagta attaaatctg taagaaaacc 7440
tgttgagatt cttcactatg aattatgact tctacaacat gtatttagc aaaaacacga 7500
tgctggcctc cactggatag ctcagtatgc tgattgccag tgatagttct gtacgcgtta 7560
ccaacagcgt ctttattaac cctctcccac atccagtgga aatcattgct aggcggtatt 7620
tgttggttgg ctgttagctt tgctttatga tttcatgttt cttttaaagg ttgttttgca 7680
tgttgaatat taaattttt ttttctgtgt cttcctctaa tctttttctg taatgggaat 7740
ttcagggtaa atacagatat tatagcaaag                                 7770


<210> 8858
<211> 139
<212> DNA
```

6558

<213> Homo sapiens

<400> 8858
tcacacaaac tacttttttg aactagagtg tgttggaggc agagaaaaat caccctgtgt   60
gctggctttg cctgccgtga gccagtgagg agtccgagaa gaggtgggca ggtcagtgat   120
gggtttggcc agagatgcc   139

<210> 8859
<211> 661
<212> DNA
<213> Homo sapiens

<400> 8859
ccagtctccc aggagaggtg tagacatgct ttggtttctc tctgatatgt atttattatt   60
gatcttcagt aaatttgact ctgatctgtt aacatggggc taatgatacc tgcattgcag   120
ggttgcttta aaaggattaa taatttgtaa aatgtgtagc ccagaccccg ccgtccacta   180
agagctcagt aggtgtcact attatcattg atgccactta gcaaatatga gctctttaaa   240
tcattatgac aactttgagg ggaagatgcc cttagtccat tgtacagatg aagaaactga   300
ggcttagtga ggagaatgga tggcccctgg gtcccatctc ccgtcgctag agaactgggg   360
agcaagaatt ggagttctgg ccgggcatgg tggctcacac ctgtaatccc agtactttgg   420
gaggtcgagg caggaggatc acctgagccc aggagttcaa gaccagcctg gacaacatgg   480
cgaaacgcca catctacaaa aagtttttaaa aattagccgg gtgtggtagc acgtgcctgt   540
ggtccctgtt gcttgggagg ctgaagtgag aggatcattt gagcccagga ggttgaggct   600
acagtgagct gtcattgcac cactgctctc tagcctgggc agcggtgtga gaccctgtct   660
c   661

<210> 8860
<211> 139
<212> DNA
<213> Homo sapiens

<400> 8860
tcacacaaac tacttttttg aactagagtg tgttggaggc agagaaaaat caccctgtgt   60
gctggctttg cctgccgtga gccagtgagg agtccgagaa gaggtgggca ggtcagtgat   120
gggtttggcc agagatgcc   139

<210> 8861
<211> 1605
<212> DNA
<213> Homo sapiens

<400> 8861
ggctagatag tgctatgaaa ctaattttgg caaaagactt tgatgaagat agaaaatagt   60
aaaattgatg gaattcacca atttggtgat attgacaatg tttcttaagc taggactttc   120
ttttcctttt tggtttgtag cctatgatgt tggtttacct ggaataaaat ctagtaagaa   180
ttcatagaat attgaagcta aaattttact tagacatccc tgtcctagct ctttattttc   240
tgataaagaa attgagacat agaacatggc acacaactca acatctaggt ttagcaaatg   300
tttactggaa acctgtaagg agcctggtac tgtatttgca gaggcatttg ggacacagag   360
ctgtagttcc cgacctagag aaacttagcc atactttctg actttcattt cattgttctt   420
tccatcatac cgtgctgcct cccttctcct cttccctcta actttaaata ataagctgat   480
ttaacttcaa agagaacatt tcaattttaa ttcctagtat ttaggatctc tcgttataac   540
ttaaaaaaat tcgacactaa tcttagaaat aactgctgtt taccactaag gaaagatagt   600
tattctccat gttataaatg gcttcaatat actttagggt tctgggtttc ccccagcatt   660
ggcatctgaa aaagaaagat gtcttagagc agcaggagaa gtatgggata catgagctgt   720
tcattcttgc ctgacatgaa ctggcctgta gaggatgagc tgggcatttg ggatcaagtt   780
tagagaaatc tgacagaaag aaatttcact ttcttgggat tcacaggatc atagagtctt   840
accaacgaga gaggcactca aagaatgtga aggttcagtt gattattttt taacttgggc   900
ttggctgtag aacataactc ttcttcgtat gactttttca tttcctggaa ttctcctaac   960

6559

```
aacaaaacaa gaggcttagt atccaaaagg aatggagtaa acactgcagg caagcaggag    1020
cacattagaa attttttacct attctttatt agatagggat ttagtagtca tcttaaatgg   1080
cacgatagtt tgaatgccca cacttctgca tgtggtcttt ctcttggttc attttttagg   1140
tatcccagtg gttcttaaat ataatatgta aagggattac tgtagtgcaa ggttgtatat    1200
acatatctgt atgtgaactt tagaagagtt taaaaggatt ttcttaatgt taattctgta    1260
gcatttggct acaggtgatg ttacaaccca tccccaatgt aagacgttag tactgtaatg    1320
acgcacttgt cccactgtaa ctaagtagct ggatatgtta caatggaaaa gggagaatga    1380
atgattgaaa atagattttt attcaaaagg aaaagaatca ttatttccta gtttctaaat    1440
atccttcaaa atgagaagag gctaaagaca tattaactaa gtatatcagc agttgtctac    1500
caatattatt tattctcaaa ggacatagtg gttcttttttc ctaagagaag atagtacaaa   1560
ctatttaaat gtagacgatt tcctggagct ttgaaaaaaa gaaaa               1605
```

<210> 8862
<211> 1606
<212> DNA
<213> Homo sapiens

<400> 8862
```
ggctagatag tgctatgaaa ctaattttgg caaaagactt tgatgaagat agaaaatagt     60
aaaattgatg gaattcacca atttggtgat attgacaatg tttcttaagc taggactttc    120
ttttcctttt tggtttgtag cctatgatgt tggtttactt ggaataaaat ctagtaagaa    180
tccctagaat attgaagcta aaattttact tagacatccc tgtcctagct ctttatttttc    240
tgataaagaa attgagacat agaacatggc acacaactca acatctaggt ttagcaaatg     300
tttactggaa acctgtaagg agcctggtac tgtatttgca gaggcatttg ggacacagag     360
ctgtagttcc cgacctggag aaacttagcc atactttctg actttcattt cattgttctt     420
tccatcatac cgtgctgcct cccttctcct cttccctcta actttaaata ataagctgat     480
ttaacttcaa agagaacatt tcaattttaa ttcctagtat ttaggatctc tcgttataac     540
ttaaaaaaat tcgacactaa tcttagaaat aactgctgtt taccactaag gaaagatagt     600
tattctccat gttataaatg gcttcaatat actttagggt tctgggtttc ccccagcatt     660
ggcatctgaa aaagaaagat gtcttagagc agcaggagaa gtatgggata catgagctgt     720
tcattcttgc ctgacatgaa ctggcctgta gaggatgagc tgggcatttg ggatcaagtt     780
tagagaaatc tgacagaaag aaatttcact ttcttgggat tcacaggatc atagagtctt     840
accaacgaga gaggcactca aagaatgtga aggttcagtt gattattttt taacttgggc     900
ttggctgtag aacataactc ttcttcgtat gactttttca tttcctggaa ttctcctaac     960
aacaaaacaa gaggcttagt atccaaaagg aatggagtaa acactgcagg caagcaggag    1020
cacattagaa attttttacct attctttatt agatagggat ttagtagtca tcttaaatgg   1080
cacgatagtt tgaatgccca cacttctgca tgtggtcttt ctcttggttc attttttagg   1140
tatcccagtg gttcttaaat ataatatgta aagggattac tgtagtgcaa ggttgtatat    1200
acatatctgt atgtgaactt tagaagagtt taaaaggatt ttcttaatgt taattctgta    1260
gcatttggct acaggtgatg ttacaaccca tccccaatgt aagacgttag tactgtaatg    1320
acgcacttgt cccactgtaa ctaagtagct ggatatgtta caatggaaaa gggagaatga    1380
atgattgaaa atagattttt attcaagagg aaaagaatca ttatttccta gtttctaaat    1440
atccttcaaa atgagaagag gctaaagaca tattaactaa gtatatcagc agttgtctac    1500
caatattatt tattctcaaa ggacatagag gttcttttttc ctaaaaaaaa atagtacaaa   1560
ctattaaaat gtaaacgatt tcctaaaagc tttgaaaaaa agaaaa             1606
```

<210> 8863
<211> 1605
<212> DNA
<213> Homo sapiens

<400> 8863
```
ggctagatag tgctatgaaa ctaattttgg caaaagactt tgatgaagat agaaaatagt     60
aaaattgatg gaattcacca atttggtgat attgacaatg tttcttaagc taggactttc    120
ttttcctttt tggtttgtag cctatgatgt tggtttacct ggaataaaat ctagtaagaa    180
ttcatagaat attgaagcta aaattttact tagacatccc tgtcctagct ctttatttttc    240
tgataaagaa attgagacat agaacatggc acacaactca acatctaggt ttagcaaatg     300
tttactggaa acctgtaagg agcctggtac tgtatttgca gaggcatttg ggacacagag     360
ctgtagttcc cgacctagag aaacttagcc atactttctg actttcattt cattgttctt     420
```

```
tccatcatac cgtgctgcct cccttctcct cttccctcta actttaaata ataagctgat    480
ttaacttcaa agagaacatt tcaattttaa ttcctagtat ttaggatctc tcgttataac    540
ttaaaaaaat tcgacactaa tcttagaaat aactgctgtt taccactaag gaaagatagt    600
tattctccat gttataaatg gcttcaatat actttagggt tctgggtttc ccccagcatt    660
ggcatctgaa aaagaaagat gtcttagagc agcaggagaa gtatgggata catgagctgt    720
tcattcttgc ctgacatgaa ctggcctgta gaggatgagc tgggcatttg ggatcaagtt    780
tagagaaatc tgacagaaag aaatttcact ttcttgggat tcacaggatc atagagtctt    840
accaacgaga gaggcactca aagaatgtga aggttcagtt gattattttt taacttgggc    900
ttggctgtag aacataactc ttcttcgtat gacttttttca tttcctggaa ttctcctaac    960
aacaaaacaa gaggcttagt atccaaaagg aatggagtaa acactgcagg caagcaggag   1020
cacattagaa attttttacct attctttatt agatagggat ttagtagtca tcttaaatgg   1080
cacgatagtt tgaatgccca cacttctgca tgtggtcttt ctcttggttc attttttagg   1140
tatcccagtg gttcttaaat ataatatgta aagggattac tgtagtgcaa ggttgtatat   1200
acatatctgt atgtgaactt tagaagagtt taaaaggatt ttcttaatgt taattctgta   1260
gcatttggct acaggtgatg ttacaaccca tccccaatgt aagacgttag tactgtaatg   1320
acgcacttgt cccactgtaa ctaagtagct ggatatgtta caatggaaaa gggagaatga   1380
atgattgaaa atagattttt attcaagagg aaaagaatca ttatttccta gtttctaaat   1440
atccttcaaa atgagaagag gctaaagaca tattaactaa gtatatcagc agttgtctac   1500
caatattatt tattctcaaa ggacatagtg gttctttttc ctaagagaag atagtacaaa   1560
ctatttaaat gtagacgatt tcctggagct ttgaaaaaaa gaaaa                    1605
```

<210> 8864
<211> 4648
<212> DNA
<213> Homo sapiens

<400> 8864
```
aaggccctcg gccggaagct ccgctttctc ttcctgctct ccatcatggc ggtgagtagc     60
tgggacctgg atttgctttc ctttatccgt cgccatccat ggcaggccga gcctgcgggg    120
gctacttcgc ccgcagcccg aggaatatgg agcccgcaat gcctgctggc ccaaaactag    180
cagagccgtt cgagccaagg acgcagggtt gaattctgtc actttccctg ccatcgtttt    240
aggagcggct ccgggcactt gcccggagtg ctcagaagca cggtcaggag gctgcagcgg    300
gggcagatgg ggtgaatgga gggttctgag gcaggggggt ccgggccttt tcctggtccc    360
ggggacttga gacttgctcg gtgctaggaa accttagtcg gttgctccgc ttagggaagg    420
tgccagcctt tagacagctt ccgaatagga tgctggacgt cgcataacca cgtgtttcct    480
gttaactgag caattaagtt ctgtttcttc gctcactccc cttagttggc cttacaatgg    540
gggcgctctt tgttaccctg agcctcttag ggttcgatct cagtgtccgt atcttttaac    600
actcaataac tgtcctgagt tttctcttca cccgttccgt tcgtggagga aggataggtt    660
ccgagctgtc ttcttccctt gatgtcccct aaacattata ccttttaaac attcagggtc    720
ttcgttacga tttgggatga gcagaaataa aaatgctgtg cagatagaaa gtagtaaaac    780
tcagggccct cagctgtgag tgtattgact gctgctcttc cctgttgcag caggatcaag    840
gtgaaaagga gaaccccatg cgggaacttc gcatccgcaa actctgtctc aacatctgtg    900
ttggggagag tggagacaga ctgacgcgag cagccaaggt gttggagcag ctcacaggggc    960
agacccctgt gttttccaaa ggtgagtagt cacaaggaca tacagggttt gcctgcttgg   1020
gtcgcttggt tgtttcttga tttacctgct gtcgagtctg tttagaaagt gacagtcggc   1080
atcacttaaa gcattaaatt catgagccgg ccaagaggtg tcttttttttt ttttttttat   1140
tcaagatggc gtgtgggatt ggaacactag attttatttg agcagatctt aagctaagac   1200
tagcccaagt aaagattttc ctaagtaact aggatatgag atagagtgga aatgtcagga   1260
acgaagtaaa gatcattaga tctgattagc agttagggtt atataggctg cattaagaac   1320
agggctgtac gggagcatga ggcttcagtg gcctatatta gtgccactgc actccagcct   1380
ggttgaccct atctcaaaag ttgtatacag attgcctggg tttgagtgat ggcttcacca   1440
tttgctggtc tgactctggg ctctctggac ctctgctttt ttctttgcat aaagagggta   1500
atactttata attgtggaag ataaaatgag ttgtacatgt gtagttgctt taggacagtg   1560
aaatatggca agtctttgga ttccactcct gctttttgtt accagctgtg atgtttggca   1620
agttaataaa cctctcaaaa cctcacctgt aaaatatgga taacagtaca ataaggtttc   1680
agcaaatagt agatgttgtc aataatgctt tgttttcttt ggaacatgat aatcttacta   1740
gtggcttctt cggcctattc tggttgtgac cttgcccttc ctggaacttc ggcgttatga   1800
ctgttcttaa ctgctgaagg atggctggat gtctggaaat gggaaaatct gtgctgtgga   1860
tgaaatctta ttaatagatg tgggagacac taattagaac accacaactt aaaagagtgt   1920
ggatgaatgc ttaatgtctc tttaagtcat ggagatggtg ttctgggaaa gaggtgagtg   1980
```

```
tagtgggggt atgatggcat ctgactcctt gttacccact tcctgcagct agatacactg    2040
tcagatcctt tggcatccgg agaaatgaaa agattgctgt ccactgcaca gttcgagggg    2100
ccaaggcaga agaaatcttg gagaagggtc taaaggtgag cctaatcccc taatggagtg    2160
atattgatca gcactccttt agtaacacat gtagataagt tacatttaat gttctgttct    2220
ttggtgtctt gatatttatt tacttaagct tctaaaaggc tttttctaca atcagcaggg    2280
ttaaactgtt cttggtggtt taaaagatgc ttgaggctgg gcacggtggc tcaacgcctg    2340
taatcccaac actttgggag gccaaggcgg ttggatcatt tgtggccagg agttcgagac    2400
catcctggcc aacatggtga aacaccatct ctactaaaaa aagataaaaa ttagccgggc    2460
ttggtggcgg gctcctgtag tcccagctac tcgggaagct gaggcacgac aattgctaga    2520
acctgggagg tagaggttgc agtgagctga tattgtgcca ctgcactcca gcttaggcca    2580
cagagtgaga ctcttgtctc aaaaaaaaaa aagaaaaagg atgcttggga gtcatttcat    2640
gcctctgctt tctctgggtt tttctctgct ctttggaagc tgggagaggt catactgggt    2700
agttggggtg tgaatctata gtcgaggtat agtgaggaag tcaggttgtg ttctcagcca    2760
agtttcattg acttctgttt gctctggggt gcatgttgca ggctgagcta ttaatagtta    2820
cttgggggtg ggagggagtt gaagatgaca aggaatgtta ttgctgcatt tttctccaca    2880
ggtgcgggag tatgagttaa gaaaaaacaa cttctcagat actggaaact ttggttttgg    2940
gatccaggaa cacatcgatc tgggtatcaa atatgaccca agcattggta tctacggcct    3000
ggacttctat gtggtatgaa tatttaatct tttcccgctc ctggtctgtg aggagagggg    3060
aatctttatt tcatatgtgg tatgttggtg ttcacatgtt gagttgcagc tttgaatatt    3120
gtctgccttt gtgttctcct cccccttggg gaaatgtgcc tcatttgtgg caaatgtagg    3180
ggtgcagctc tgaacaaggt ggacaagatc cctgctgttg gggaacttgc agtcgaggat    3240
ctgtaaagca cccacatggc ttaaaggtgg atgaaggaaa ctgttccctc cagccagtga    3300
tttgaaactt tggagagagg cagtattggt gccacatttg gcctatgggt tggttggctg    3360
cactgaggct gttctccccc tggttcttcc tatagaaaca gctttgggtg atgcagtggt    3420
ttgctcagga agggggtttt aacatagaaa tgaccttttg tgttactgcc gtgttttggt    3480
ccaacaataa aactgaatag cctaaatcag aagtcctgac tagtgtggaa cctgaaagat    3540
ggtggcaccc tcattagaca gacaagtaat aagacttgga tactcacagg atgttggagg    3600
aacagcacac ctttgggaag catttttgag ctgaagcaga aggaagaaaa tatatatatt    3660
tgtgcttctc agagttgtat gttttctaca ctgctggtgt ggcaatagat ttttaaatgt    3720
tacttttaaa aagaaaaatg gagatttggg agcagtaatg gaggatcctc agcaccactg    3780
gaaaataggc tgggttaggg gggtgctgaa agttccagcc tccaaagcaa acttacagta    3840
tggctgtgtg ttgcgtggga tgctggtggc agctttgtca gacacagatc atgggtcttg    3900
ctccagaatc cattgggctg ccaagtgact ctttgaagat ctgtctgtaa tgtgtgagtc    3960
ttgtccatct gctcttgact ctgagctggc taggtgactg ttggttattc ctgggacagg    4020
tgctgggtag gccaggtttc agcatcgcag acaagaagcg caggacaggc tgcattgggg    4080
ccaaacacag aatcagcaaa gaggaggcca tgcgctggtt ccagcagaag gtaaagctga    4140
tttatctcaa gtgaagtggt ggaatgtgat gttggtgaat ggagttggga tttggggatg    4200
caaaatatag tactatttgc tgggtatctt ctttaaagtt agaatattgg gcatcttgac    4260
aaatcagggg cttccaggga tgatggttta aaagaacatc cagaactagg ccttctccct    4320
gtcaccatga atgggggtag atggaagggg aggaatatgg cttttaacag gagcccccttt   4380
tctcagatga tagtgcagtt cagcacagtg taaaaaccag ccagcttcct atttagtcca    4440
gaaaaggatg ggattcagag cccaagttca tgtatcaatc agatgtgaat tctcaaaagt    4500
tagccattgc tgcaatctct gctgttgcct cctgttctga aaaaattaaa tctcttctct    4560
ttcagtatga tgggatcatc cttcctggca aataaattcc cgtttctatc caaaagagca    4620
ataaaaagtt ttcagtgaaa tgtgcaat                                       4648
```

<210> 8865
<211> 638
<212> DNA
<213> Homo sapiens

<400> 8865
```
acaaccccgt catcctctga ttggatgcca gtatttcctg gcagatccaa gtccaagctt      60
catagcattc attgcctgtg cttgccacac cttggttgat gtgctgtggt gcagtagccc     120
catttggagg ggagggtttg gttgatgttg gggtttgaat ttagagcctt ggttaagcag     180
ggtgcagtgc tcctgtgttc caggaggccc cctgctattc agtgattctg ttctgtacta     240
gaaattttat cagcattgat gcgtcatgaa ggaatgacag gctttggtgt gatggttgag     300
attaaattta gacttaactg ttcaggctca ggtttctttt acaatgagag tataaggttc     360
ttgggaggca gtatgtgcag ataagagggc agtctttccg tttccagccc tttcctttaa     420
ctgttacctc gggtgagttg ttaatctgcc tcagtttcct tatctgtatc aggaggcagt     480
```

6562

```
aatagtagta tctctcagag gattaaatga tttaatactt aacaaaatgc tcagactagc      540
accagccacg tagtgctcaa aaggggtttc atttttgtgt ttgggtataa gaaatattac      600
ttctgctagc ttgcttccct ttggtgcaaa aatgaaaa                              638
```

```
<210> 8866
<211> 313
<212> DNA
<213> Homo sapiens

<400> 8866
acttattttt tattttttgag acggagtctc gctctgtcac ccaggctgga gtgcagtggc      60
gcgacctcgg ctcactgaaa gctccgcctc ccaggttcac gccattctcc tgcctcagcc      120
tccagagtag ctgggactac aggcgcccgc caccacgccc ggctaatttt tttttttttt      180
ttttttgta tttttagtag agacggagtt tcaccgtgtt agccaggatg gtctcgattt      240
cctgacctcg cgatccgccc gtctcggtct cccaaagtgc tgggattaca ggcgtgagcc      300
accgcgcccg gcc                                                         313
```

```
<210> 8867
<211> 11240
<212> DNA
<213> Homo sapiens

<400> 8867
ttcagagtgt tgtttattg ccctgggatg taaagacttg gggacacctg acaaagggat      60
gcttagatat attgcttggc cttgactgca ggagagttta cagcagcaga gacagcatct      120
gggcccggag ggaatgtgtc accaaatgaa cttgattttt actccatagg tcctggctcc      180
ccagaagcaa gagagttcaa atgaaggaag gaggaggttc ctggatgtgg atgtcatcat      240
ttctgggaac actcttaaat ggagactcag atttcttagc caaaatttag ggaggatcca      300
gaagaaacca aagacgaagc atcccagttc ttgggtattt cctgaaacag aagaaaatga      360
caaaggccca ggtaactttt ggtttgtttt attcttaact cgattccctg atggatttgt      420
ggaagtctga agaaatcagt tcatttacat taaaagtata aattggaaaa aatgagctct      480
ggggagaaac agacttagac tgtacctttta atccaggaca aagtgggatc acaaatactt      540
tgttcacata gttcacatgt gaccagtgtt ggaatataat gtgcgactct gccagaccct      600
gttggctaca ttaagtgtca gcttgtgtcc aaaatctttg gccaccatca cacccagaga      660
atcatggtaa gttacatgat gtgcactgat tctgaggaga aagcgggtcc gttcctcagg      720
ggatgtcagt atttcatggc acttaaatct tgggaaatta gtttgatgct ttttgctaga      780
ggtgacaaga tagacttttt gtccttaaca gcattttttcc aaaagataca caagcaagtt      840
ttgtgtgact gtttctacat gattattctg agtcctctat gggactatac caagaagggt      900
ttaatgaaca cagttttttcc agagctcaca gcactgcggc ctatatatccc aaccttgttg      960
cagtctgtgt ttatctgtga gtaaacctaa ttgcctaaaa aatgcaaggt ttgctttcaa      1020
aggagctcca tgaacaggtc actaaactgg tgtttaagta cagatttgac caaagggagt      1080
tgaaagttct cttttggcaat ggcttgggtt gttgagatcc acagggtttg ctttagaatg      1140
tcatgttgtc tcagaaaata cagagccctt ccctgtgttc aaatccagtt attaacctct      1200
cacctctttt aatgccttaa cttaaaaaat tatgcaaatg actcattatg gttttacacg      1260
tatatatatt tggtctctgt ctctggttct tggcacagag ctcctaaaac ctttggaatt      1320
tcctgagtga taggagtgta ttttgttctt cataaccagt gcctttcaac cacacctgag      1380
tttatggtaa tgaggtggct cagaatgggc tcctagacaa cctcaggatg gggctggttg      1440
ccagaaagac caagccttga ttacagagtt gggactttca gtcccacccc cgacctccag      1500
attctgtgac caatggttga tgatttcttt tttttatttt ttatttttta atgagatgga      1560
gtcttgctct gttgccaggc tggagtgcag tggtgcaacc tcggctcact gcatcctcca      1620
ccttctgggt tcaagcaatt ctcctgcctc agcctcctga gtagctggaa ccacaggtac      1680
aaaccaccac acccagctaa ttttttttttt ttttttagtag agacagggtt tcaatatctt      1740
ggccaggatg gtctcgatct cttgacctca tgatctgccc acctcggcct cccaaagtgt      1800
tgggattaca ggtgtgagcc accgcaccca gccatggttg atgatttaat catgcccacg      1860
tcgtagaagc tccataaaaa cccccatggg gtttggagat cacatgtgga agtggggggt      1920
gggggaaggg ggcactgcaa ttccatggga tcagaggctc ctgtgcttgg caccctttgg      1980
accttgactt ctgtacctct ttacctggct gtcatttgta tcctatataa taaactgtaa      2040
ttgtgtgaca ttttcctgag ttctgtgagt cattctagca aattatcgaa cctgagcagg      2100
gaggttgtgg caacctccag ttgtggtcaa gttggacaga agtgtgataa cgtggggacc      2160
```

```
ccagagtggc acatgatgtg agggcagtct tgtgggaccg agccctgaaa cctgcagagt      2220
ctgatgataa ccctcagcgg ttagtgttag catagcatcg aactctagga tacccagttg      2280
gcatcagaga aagtgttgct ggaaaagaca ctgtgtattt ggtgtcagaa agaaccacag      2340
attcatagtt tttttttttt tttttttga dacagtctta ctttgttgcc caggctggag      2400
tgcagtggcg tgatcttcgc tcactgcaac ctctgcatcc tgggttcaag cgattctcat      2460
gcttcatcta ggtgccacca tgcccaccta atttttgtat ttttagtaga daccatgttt      2520
agccatgtta gccaggctgg tctcaaactc ctgacctcgg gtgatccgcc cacctttgcc      2580
tcccaaagtg ctgggtttac aggcgtgaga catcatgccc ggcctcatgg atagatttc       2640
aatgtgaaag actcaagtta aatagtacac atagtgtgaa aacaaagttc cccctctgta      2700
tactttttt cctaattccc tagtatgtca ctaacaaatg cttgtcttcc tgttctaggg       2760
atttacctgt gaggacatct atgtctgcat gcgtgtgtat gtgtgtgtat acatgcgttg      2820
tatacatata catgtatcta tgcatgtcaa tgcttacatg tatgatggct tattttttat      2880
ggccactgca tagtttattt gttgttttgc taaatatcat ggtatagttt acatgaaggg      2940
ggtcatgcta gattattctg cacgtactat atgactgtag catatagttt agggttgcaa      3000
gtaggtgctg aaaaacactg cagacattct catgttagca agaggattta atggctgcat      3060
attacagaaa cttatgattt gttggattaa tggatggctg catggttatt ataaaatata      3120
gaatatttta ctatgacttt gcttctttca cagtatattt aaaaaactag aatacagtt       3180
tatttgtgaa catgaatttg tactgcaagg gtccacttat atccaaactt gaatcaaaaa      3240
tatagtattc tcaggatgtg aaactcgctt atacagagta acataagcag attccactag      3300
gccaactgta ggtcatgagt atgcacaatt tcggtatatg tggggcatcc tgaaaccatt      3360
ccattgagta taccaaggga caactgtgca ggtgcagctt atgtggtgaa aatgggccga      3420
acaacttcat atttcttcca tgtcaataaa agagaaacat attaagcagg actgtgttat      3480
tacaggaatc actgaccctg gaggatgtgg ctgtggactt cacctgggag gagtggcagt      3540
tcctgagccc tgctcagaag gacctgtacc gggatgtgat gttggagaac tacagcaacc      3600
ttgtgtcagt gggtgaggac agctgccctg tgtcactcag agggtaccca gtcagtggcc      3660
tttgctttct cagcttctgg aagctttggt atgtctgctg tgctcccaaa tggcagatcc      3720
tcaggcccgt ctctggtccc acaggaagag gcataatctt ccttcgtctt agaaaaaaag      3780
cctttaattt gctaacatgc aaattatgca gtccctaaca tgtacctttc tcctatcatc      3840
agagccacgt ggtgcaattc agtgagccta agtcttctcc catttcccac aaacagggta      3900
tcaagccggc aaacctgatg ccctcaccaa gttggaacaa ggagaaccac tatggacact      3960
agaagatgaa atccacagtc cagcccaccc aggtaagtga gagagaacca gcaagagggg      4020
aaggcagcgg aagtcacatt ctggtcattt agagaaggca tgacagttgt gaaagtgtct      4080
agggagacag aaacagctgc cacatcttct tctcccctag gatacaagag ctctttttct      4140
tataggaatt cagagaagca tacataccc tttatctctt cttggaactg atccctattc       4200
atttcttctt agatgttgag ttgcttcccc taagttcttc ttgcttggat tttcacatct      4260
tcccattctt cttcatcact tgtcagagga tcattttgtg tttctgaggc aaaaacgaca      4320
aactgttttt ttctctgtca catagtcact caacacagca tttatgccac tggatatata      4380
ggggttgttt tctcacagcc caggcaattc tccagcagac atcagctggg tatcgtctgt      4440
ttcaaatcag ctctgaccct atctacctga tacggcatca gatcccaccg gttaagggct      4500
cagtccaaga ctgtgtccca cttcagatgc cagtggcaag tcccaggttg tcacctcagc      4560
ttctgaccaa ccagctgtaa agtaggggtt cccaagaccc tctcctcaag tttgattaat      4620
ttgctagaac agcatttata tgtatatgcg tgtgtgtata tatgtgtatg tgtgtgtgta      4680
tgtgtgtata tacatttata tatatacttt atatatttat atgtatatat acatttatat      4740
aagagagaga gggagaaaga gtgccataag cattgtctag agttactgat tcatcaagtg      4800
agataagaac tgaggcatag gaggccgggc atggtggctc acacctgtaa tcccagcact      4860
ttgggaggct gaggcgggcg gatcacaaag tcaggagttt gagaccagct ttgccaacat      4920
ggtgaaaccc catctctact aaaaatacaa aaattagccg ggcgtggtga catgtgcctg      4980
tagtcccagc tactcaggag gctgaggcag gagaattact tgaacccagg aggcagaggt      5040
tgcagtgagc tgagatcgcg ccatttcact ccagcctggg tgacagagtg agactctgtt      5100
tcaaaaaaca aaaagaaacg aaaaacaaaa aaacaaaaaa actgaggcat cggtatgtga      5160
ttatggtttg tttttcacat tctgacacta tgtatttttc accttgaatt ttcttttcat      5220
gaaatggttt ttaatacact acaatataat aatatcttcc atgtctaaat tcccattcta      5280
ctttgcatcc caatcacaca caagccactc ccatagatac cacatcagtg tgatttggtg      5340
gtgcttgagg ttcctttgct actctggagt caagggcctg gttttcattc ttcttcatgt      5400
aagattgaaa tacatcttgg tcattcatgc atttcttcat cgaaggacag attagccagg      5460
ctgaagagag gtcatacttt tccatctatt aagcatttct taaaggctag atctttatta      5520
aaggagtttt catgacactg tccataccaa ggcctcttgc tctgtgagtc tggttttgtt      5580
agaattgagt tggggcctg ggcgtgtctt tacatgaagc tctctcgggg gctgtttta       5640
tgagttgatg aactgtagcc ataatacaca gtagaagaga ctgaatttag tgagaaacag  .   5700
aaatgtcttt cttgagcaaa gattttgtta gcaaaaatag ggcaaatttt tatgtaatat      5760
ttacaaatta aactttgaa cgtgtgaaat gtttttgtta caattcaggg ctatacaaag       5820
```

6564

```
ttaaagtgaa tagtaaatac agaaagaatt gtaggacttt agaagaaatg taacctacag   5880
tggtctagac aagatggaga aagacagact gataaaatat cttatgcaag agacatagct   5940
aggtattgaa ttaagatgaa gacatatgac aagaagttgt agaactggaa atgcaaggcc   6000
atgtggggac tgtcagaaga ttagcctgaa ggccgggtgc ggtggctcat gcctgtaatc   6060
ccagcacttt gggaggccga gttgggcaga tcacctgagg tcaggagttt gagaccagtc   6120
tggccaatgt ggtgaaaccc tgtctctaca taaaatacaa aaaattagcc aggcgtggtg   6180
gcacgtgcct gtcatcccag ctgctcggga gactgaggca ggagaattgc ttgaacctgg   6240
gaggcggagg ttgaagtgag ccaagatcgt gccactgtac tccagcctgg gtgacagagc   6300
aagactccat ctcaaaaaaa aagaaaaaaa aaagattagc ttgaaactgg tcacatggag   6360
gccacagtta gaagatattt gctgggaaat ggtgaagtgg gaacttaaag tggatgcgtc   6420
atggtaatgg taaaactttt attgttcagc tcctgctgtg aattttctgt gccagtaatt   6480
cagggtagtg gtggaggtaa agttttgtat ttttctagct ctaggtagag cttaccttte   6540
acctggtggc agtactatag caatcatact gtatagctga tgttctaaga aaaactaaaa   6600
gtaaagctgc ctcaagtctt gattcagaag tagggaggtg gtccttgagg gctccattca   6660
ccgatgccaa cagagacata agtacaaaat tcagagagta gaggctgtta gtggcaaggt   6720
gaggaattag tatattaggg acagcaaagt ggaaaaaaaa tccaatatga catctgtgca   6780
agtagggcat gatgaagaag gtgacagttt ccatatttgg tgcagtggca gagctgtgtg   6840
gagaggacca cgtgttctgc ttgcatgttc tgaaagtcca tagggatcac cctgtttctc   6900
tttctgttgg aacatatgag aatatatcat agccaggtag atacaaggtg ttaaccaaaa   6960
aattgaggag gcaaagagaa actttatatt ctaacaaaag atgattcgca gatctgagtg   7020
gtgtgacttt gaggaagtgg aaaaaacaca catcactgaa gaggggaaac ttttttttt   7080
ttgccttgca ggaggctttt tgccttctag gatttgcttt gcatacctat tcagtgagag   7140
atggggagtc ttatgaatat ctttatgaga atcagcaaac atgtgcatag tgagcaaaca   7200
tatatgtaac atataatcca cttttcatttt ggagtggagt tttaacatta aaatgaggtg   7260
gaatttgact gtatgctagc aggtctttta caggatataa gaaaagtctg cacagactcc   7320
ggcagctgac caaaacagct ggtgtttatc aggagaagga tattgagatc agtctcctgt   7380
ccaatcatag ctgcagttat ggcctgtgga atgctgttgg gggtgagggg catcagttag   7440
tcagcatctg gtggtccggg agctgcaatt gtttcaatat tgcttgtccc aaggccagtg   7500
tttgtttagc tgctacagaa aaagaaacaa aacaaaacaa aacaaaaaac actcgtggca   7560
gttagaacat agtttattct ttaaatgtag ggggtgtgtg acttaaccct tacctgtatg   7620
tccttagacc tagtttatag tttggtatct tattgctaca aagagtctgt tccatcagtc   7680
ttgtgatctc tgtttttaaca aaggttagag tattgactgc agttttcctg gaaatatgag   7740
attggtgctc taggaaagtt agcgtgatga tggtctacag aatggagaag ggcatatttt   7800
agcacccaac agtctaatag gattaggatg aagtcaaagg ctgtgtatcc aacattctaa   7860
cttgcctttc tgggatattt attctactac ctatgtctgc tgtttcccta ctcaggatta   7920
ttctttttta aattaaaaaa aaagtttttg tagagacagt ctccctattg tagcccaggc   7980
tggtctcaaa ctcctgggct caagtgatct tcccacctca ccctcccaaa gtgctggat   8040
tacaggcatg agccactgtg cctggctggc aaatttttt ttttttttg agatggagtc   8100
ttgctctgtt ggcagactgg agtgcagtgg agcgatcttg cttgctaca acctctgtct   8160
cccaggttca agcgattttc ctgcctcaac ctcctgagta gctgggacta caggcacgtg   8220
ccaccacgcc cagccaattt ttttgtattt ttagtagaga tggggtttca ccatgttggc   8280
caggatggtc ttgatctctt gaccttgtga tccacccgcc ttggcctctc aaagtgctgg   8340
gattacaggc ataagccacc gcacccagct ggcaaatttt atcttatatg tatttaacta   8400
caattcttaa aagttttttt aacagatagg gaacacttat acttggaatt ccttccatgt   8460
tggtattata ggggttccag taaaaagcca gccaacccca aggcatcttt gaagcagttt   8520
tattccgtgt gatgatcatg gaaggattta ttgttctctc tcttagaaat tgagaaagct   8580
gatgatcatc tgcagcagcc cttgcaaaac caaaaaatac tgaagaggac gggacaacgc   8640
tatgaacacg gaagaacttt gaaatcatat ttaggtttaa ccaaccagag cagaagatac   8700
aacagaaagg agcctgctga gtttaatgga gatggagctt ttctccatga taatcatgaa   8760
caaatgccta cggaaattga attccctgaa agtagaaaac ccatcagcac caagtcacaa   8820
ttccttaaac atcagcaaac acacaacata gagaaagccc atgaatgcac tgactgtggg   8880
aaagctttcc tcaagaagtc tcagctcact gagcataaga gaattcatac aggaaagaaa   8940
ccccacgtgt gtagcttgtg tgggaaagcc ttctacaaga agtacaggct cactgaacac   9000
gagagagctc acagaggaga gaaacccac gggtgtagct tgtgtgggaa agccttctac   9060
aagaggtaca ggctcactga acacgagaga gctcacaaag gagagaaacc atacgggtgc   9120
agtgaatgtg ggaaagcctt ccccaggaaa tctgagctta ctgaacatca aaggattcac   9180
acggaattaa gccccatca atgcagcgaa gtgggagag ctttctccag aaaatcacta   9240
ctcgttgtac atcagcgaac tcatacagga gagaagcctc atacatgcag tgaatgtgga   9300
aaaggcttca ttcagaaggg caatctcaac atacatcaac gaactcacac tggagagaaa   9360
ccttatggat gcattgactg tggcaaggcc ttcagccaga agtcttgcct tgtagcacat   9420
cagagatatc atacaggaaa gactcccttt gtatgtcctg aatgtgggca accctgttca   9480
```

                                    6565

```
cagaagtcag gactcattag acatcagaaa attcactcag gagagaaacc ctataaatgc      9540
agtgactgtg ggaaagcctt ccttacaaag acaatgctca ttgtacatca cagaactcac      9600
acgggagaga gaccctatgg ctgtgatgag tgtgagaaag cttacttcta tatgtcttgc      9660
cttgttaaac ataagagaat acactcaagg gagaaacggg gggattcagt gaaggtggaa      9720
aatccttcca cagcaagtca cagcttaagt cctagtgaac atgtgcaggg gaaaagccct      9780
gttaatatgg taactgtggc aatggtggca gggcagtgtg agtttgccca catcctgcat      9840
tcatgataaa cagtttgctg tttgatcata tagcctccag cggaatgctg agtttgtcat      9900
gtcccatggg cctttggctc cctgcactaa tatgtatagt agggtttaca agatatgaaa      9960
tatattttac tttttatat cttataaacc tcactacccc tcccacaata ttgttttttca    10020
tttactatct tgatcataga gtttggctgg ggagggggc agttttagag gcttccactt      10080
ggtgttcctc agaatgatat ctcttactcc gggggccaag gtaggggtta gctttgttc      10140
tctttgtagt ttagattgta tctcttgcct tgttcaagtt cacaaatctt tttgtgtata      10200
cacatatgta catgaaaatg atgttcatgc ttttattat tttacccttc attatttcat      10260
tttttatagt tctcatagct atgtctttca gttcactaat cttttttcca cagtgtttaa      10320
tctgtcatta atcccatcca aagtatgttt tctctcagaa attgtaattt ttaacctcta      10380
ataatttgac atgggttttt ccctgttata tctttcatat ctttatttat catggtttta      10440
cttttaacct atttatgctt tcatatttaa agtgggtgtt tagtgggcaa catacagttg      10500
ggccttcctt ttttatccag ttaacaatct ctgtcttttt actggggtat ttagatcatt      10560
tacgttcaat gtattgatgt ttttaggttt aaattactaa cttactattt gttgtttatt      10620
ctatgtcttc tttgttctcc ttttcttctt tttctgcttt cccttagagt agctgagtgt      10680
gtttatatta catattgtct cctttgttgg cttattaact gtaaatcctt gtcatttgat      10740
tccttgagat tttatagcat acatcattgt gagggattgc atatttatgt cctctccaaa      10800
tttacatgtt gaagtcctaa tccctaaggg atggcattag gaagtgtgac ctttggaagg      10860
taattacatc ttgaaagtgg aaccctcatg atgagattat gtgtcttatg agacaacaca      10920
gaagagagtt tgttttctct ttctctgctc tttgccatgt gaagacagaa tgagatgacc      10980
atgcataaac caggaaatgg actctcactg gacactagac ctgccaacac cttgattgtg      11040
ttttagagtc cagttctaga gactcctcag cctctggaac gtgagaaatg aatgtttgtt      11100
aaggcagtca gtcagtctat ggtgtatttt ttctagtagc ctgaactgac tgaaagaaaa      11160
tcatgaactt atcattctaa cttcaaggac attatatcac ttactgtata ataaaataat      11220
cttacagtag tatatctcta                                                  11240


<210> 8868
<211> 497
<212> DNA
<213> Homo sapiens

<400> 8868
aattttgagt ccaagtttca gtcaaccagc caagtcaaca gttagcacca ctcaatttag       60
ctcacacact gaaattgcca gtagaatgta atctccatga atgagagtct ttgtgcctga      120
atttccaact gttgtattcc cagcacgcac aacagtgttt gacacattag gcattttata      180
aacattcgct ggataaatga gtgaatgatc aatccctta aaggttctct gaggctggtt      240
ataaaattat agggagcagg tttggtgcta gaattcatca gttaattgat cagctgagtt      300
tcagtattga acagaatcat ctcccttca gagttttgat ttcaagttgc tcccaccttc      360
ctggatgtaa aggcttgttc tgcctttggc ttttccaggg tgagagagcc ctgttttcgt      420
gttggttccc cactttgtca actgctgatc aactgtgttc tccattctcc acaccaatta      480
taaccaaagc tttaaca                                                    497


<210> 8869
<211> 9754
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (7069)
<223> n equals a,t,g, or c

<400> 8869
aggggaggaa gtaactgtag atgtggtgga aatagcaaga gaactagaag tggagcctga       60
```

6566

```
agaattaact gaattgtttc aatctcatga taaaacttaa atagatgagg agttgcttct    120
tatagatgag cagagtattt tcttgagatg cattctattc ctggtgaaga tgctgtgaac    180
attgctgaaa ttacaacaaa ggattttaaa tgttacataa atttaattga taaaacattg    240
gaagggtttc caattttgaa aaaaagttcc gtggataaag tgctgtcaaa tagcatcaga    300
tgctacagaa aaatcttta tgaaaggaag catcaatggc tgcagcaaat ttcattgttg     360
tcttatttta agaaattgcc acagccaacc cccactttaa gcaaccatca ccctgatcag     420
ccagcagtca ttaatatcta ggcaagatcc tccacctgta aaaagatgat gactcactga     480
aggctgagat gattgttagg atattttaac aatgaagtat ttttaaatta aggtatgtat     540
tttcttaggc ataatgctat tgcacactta gtaaactaca gtatagtata aacgcaactt     600
acatgcactg ggaaactgaa aaaattatgt gacttgcttt attgagatac tcactttatt     660
gtggtggcct gaaaccaaac ccgcagtacc tgtgagcatg cctatatttg atacaatagg     720
aactatattg caggtagtaa aaaatgatga atagtgttag ttcaaagcga tagatgattt     780
gtatgtccaa attaaagaaa agcatgtatg ggaaaaagat tgtcattttt atgtaaatga     840
taagtgcttt ctgaattgta tttaaagaaa agaagatttt ataagtccaa agaatcactt     900
aatacaatga ataaagggta ataatttacc acttttggat tacctttat ttaagacata      960
aatttttcaa ctcataagct atttaaaatc ttttcactta agatacctgt tgaaatttg    1020
tttaggtatc tggccaggaa cagtcttcac ggggacaaag aatttatct attccaattt     1080
ggcccccaaa cctaggtatc tcacagaact gtgtgtatga ggtacagcag gtaccaaaag     1140
tagaaaagac aggtaagtgt ttgtaataca ttttggcagt ctgctgggta atcatgttcc     1200
ctttgaagac ataaaactaa gttttaaaa agaaaaaatc tcagggatga atattcatat      1260
atataaatat gtagttattc attttttttc ttaagacctc taaatttacc tttttaaagt     1320
tgaacttcca gaattatctg tgcatgattt acttgcatgt tgctttggaa ttgtttgcat     1380
ttttctattt ttcctaattc tggaggccat cgaaatatat agattccaga atgaaacatg     1440
taactaggca tctttctaac ctagataagt cttaaatatt gtttctagag taagatgacg     1500
atattaaggc aaactagaac aataacatta atatatttc ctctattctt acagacagtg     1560
atctgacaca aacacagctg aagcaaacag aggtcctagt gacagctgaa aagtgagttc     1620
tggaaagcaa aaggagacat ttgctaactt tagttgaata aaaaactcat ttctcaaaaa     1680
tcacttggat aaaaaaatga aggtgatagt attccgtgct ggtgaagggt gctggccctt     1740
aagtcagata ggcctgagtt ccagtcctga ctctgctgtg ttttagccga atgattttga     1800
gcaagaaact taacatctct gaggttcagt ttctttgtct atagtttgga ttgttgtgag     1860
gattagatga gacaaagcat ataaagcaca atgtctgaaa catacctagg cacctaggta     1920
gtgttaggaa gggaaacagc ttgtctgtgg acctggacca gctcaaatac tctttgaaat     1980
tcacatactt aaacaaaggt caagatcaca taaaaatatc tttcagatct caaaaggatc     2040
tttagttgtc tttgatttac taaatctcaa aaccatctat aagagaattg atccaaaaat     2100
gaatatgcca gttgaaaaga tgatcatttt aatttatctc ttgaactgta ggagaagatt     2160
gtcagagggg tgaagatgct ggaattcttc attaaagaaa taggaatatt tggggctatg     2220
gttgagaaat tgatacatgt taataaaaca ggacagagac ttaaatcttg tctcagggag     2280
attcttgaaa tatcttgatt gttaattata ttgtggctgt tttatagttt tttgtttaa     2340
catttaaatt tagggaccaa ttctcattta ttttatctgc ttctcaatct ttattttgta     2400
taccttgttt tgagaaaata ttactacata aataagaact agtaagaatg gaagcaattt     2460
ttaaaaaaat ttttaaatg aatattttaa aattcatgat taaacctttc aatatagtaa      2520
aaacttcttt gaataagatt aataaggagg ctaatctaac aagtacttcg ttttgagtaa     2580
ctcttaaatc ttttgtaac aatataggat ataaaaaga tattggctgg gcgtgttggc      2640
tcacgcctat aatctcagca ctttgggagg ccaggcgggg aggattgctt gagcccagga     2700
gtttgaaacc agcctgggca acacagtgag accctgcctc tattaaaaaa aaaattaaaa     2760
cattctggcc gggcgtggtg gctcgtgcct gtaatctcgg cactttggga ggctgaggtg     2820
ggtggatcac gaggtcagga gttcaagagc agtctggcca agatggtgaa accccatctt     2880
tactaaaaat acaaaaaatt agccgggcat ggtggcatgc acgtgtaatc ccaggtaggc     2940
tgaggcagag tattgcttga accctggggg gcagaggttg cagtgagccg agatcgcacc     3000
accgcattcc agcctgggtg acaaagcaag cctccgtctc aataatgata taattttaa      3060
aaaatagata ccttacttgc ccttggtgtc taaaaattaa aagaaaaaaa gaggccgggc     3120
gcggtggctc acgcctgtaa tcccagcact ttaggaggct gaggcgggcg gatcatgagg     3180
tcaggagatt gagaccatcc tggctaacac ggtgaaaccg cgtctctact aaagatacaa     3240
aaaaaaaat tagctaggtg tggtggtggg cgcctgtagt cccagctact cgggaggctg     3300
aggcaggaga atggtgtgaa cctgggaggt ggaggttgca gtgagctgag atcatgccac     3360
tgcactccag cctgggcgac agagcaagac tctgtctcaa aaaaaaaaa aaaaaagat     3420
acttttttgt atctttatgt aaatacagag tgtttatatg catagcttat atctgtaaac     3480
tgaaaaattg atagataaga gtttgcagaa gacctatttt tatttattat ttttatttga     3540
gagttgatct cactgtcatc caggctagag tgcagtggca tgatcttggc tcactgcagc     3600
ctccacctcc caggctcaag cctttctcct accttagtct gccaagtagc tgagatcaca     3660
ggcatgtgcc tccacgcgta gctactttc tagatttttt ttttttttt gtagagatga      3720
```

6567

```
ggtctcactg tgttgcccag gctggtctcg agctcctgag ctcaagcaat cttcccgcct   3780
tggcttccca aagtgctggg attacaggtg tgagccaccg cgtccggccc tattttatgt   3840
ttaatattat aaatccttag acataaaaag ttgctaataa aacttagagg gcattttttaa  3900
ggatttacct ttgttcctga catatgaaca ctttaaaagc aagggaaaca tcttcatcta   3960
tgtattctca gcacctgaca tattgcctag aacttagaag atgtttggta aatgtttgtt   4020
ggataagttt ttttttttaat tttattttcc ttcaaggcat aaaagatcct taagattcat  4080
aaagtatcac tagaaaatag tctttaaacc ttttactcat aacatcacat atatttgtgc   4140
atggggcaaa tataataaac cattagagaa gctgtttttaa gatgcagtac aaaattatat  4200
gtgatagcaa gaaaaattag agaagaatat ggcctctctg tcatcaaaag tctagaggat   4260
tccaaatagt gttcctgaag accccccttga ttctctttct taaaaacaca ataaaacttg   4320
ttagaataca tgttctttag taagtggagg cattcacacg ttataaataa tgaaaaaaca  4380
cattagtatg ttaattattg agcttttttt aaaaaccaca tttataatgg ctttattgat   4440
gggttttaga tatcactgca taagtaaatt aatactaaat tatgatatgg tctttttaaa   4500
taaagcttgt cctaatgttt ggtcttagtc tagaaattaa gtgaaaaaga aattcagata   4560
ggaggaattc ttgaagttac aaaaactcgg attctaaaca cttcttcttt tctatttaga   4620
ttgtcttcaa atttacagca ccatttcagt ttgtcatctg tttattcaca ttactttcct   4680
gacactggaa ttccagaagt gaccacctgt cattcccgaa gtgccataac tgtggattat   4740
attttctact ctgcagaaaa ggaagatgtt gctgggcacc caggtaagga atgcatgtaa   4800
tcttaaattc tcctagagag cacagtagct aaaacctcaa ggttaaagtt aagaaagctc   4860
tctaaacatc cagttgaagt tctagatcta gaaggtaaaa atatttcgaa atagacagat   4920
tggtaatata tttgaataaa tcagttgatt acttgcatat gagggaggca ataaaacaca  4980
tccaagcaaa ttattaccca agaattacat tagcagtcct accctccagt tccagtcagc   5040
ctctgagtta taggtctttc atattgccct ttctttttgc ttgccataaa tttactgttt   5100
ttcctgtgac aggaactgag tatgttgtta atggtcatca tagtttttgtg cttaaatttt  5160
accgaggcgt cctgccttca ttggaggacc atagttacac tgccagcaac acagcttatg   5220
ctgtcatgtt gactctggaa tattggggattt ttctgaggag gaaaagtata tatatatata  5280
tatatatata tatatatata ttttttttttt ttttgataca gagtctcgct ctgttaccca   5340
ggctagagtg cagtggcatg attctcggct tactgcaacc tctgtctccc gggttcaagt   5400
gaccttccca cctcagcttc ccgagtagct aagactacag gcatgagcca ccatgcccac   5460
ctaattttttg tattttttgt agagacaggg tttcaccgtg ttgcccaggc tggtctcaaa  5520
ctcctgggct caagccgtcc acctcggcct cccagggtgg cttggattac aggcatgagc   5580
caccacattc ggtcagaaaa gtctatataa ttttttttgtt tgtttgtttt tgagacggag  5640
tctcgctcgt cacccaggct ggagtgcagt ggcgctatct cagctcactg caagctccgc   5700
ctcccaggtt cacaccattc tcctgcctca gcctcccgag ccactgggac tacaggcgcc   5760
cgccaccatg cccggctaat ttttttgtatt tttagtagag acgggatttc accgtgttgg   5820
ccaggatggt ctcgatctcc tgacctcatg atctgcctgc ctcggcctcc caaagtgctg   5880
ggattacagg cgtgagccac tgtgcccggc cgaaaatcag gttttaaaca ttagccaaag  5940
gatttaaagt ggagaagaaa atgcagttta agattactgg aagtacaaaa ataccttttaa  6000
gaaactttttg gaatgtgagc agctgttttta ttcttttctg attttttttca ttttttttctc  6060
ttccattttt ttggatgctt cttttttcttt accctttttcc cctctgtttg ttccccctc   6120
ctttcttctg ggaataacct tattagtaac actacgaga tgacttattc ctgccactag   6180
atctactcta caaaaaatat gcctgctgct ttgaatttat agtaaggttt tcgtagttgt   6240
catgctgaca gaagttcact aggtggcagg agagtgttat ggatcagcat ttcaaaaaga  6300
gcatgtcatc ttcacttctg tgggtgctga ctatctggga ctaaattata ctaatttatt   6360
ctccattcac cttataaact gctacagggc tgtggcccgg tgtctctggc tttatgcaac   6420
tacagaatgg ttgctggatg agttcttat gtagttgtca accacaaatt acccttaaca    6480
ttcttaagta tttcatttat attttcttct aaagattgtt tacagagctg gaaatagaaa   6540
aaatatctca aactgctgtg tgtttgataa ttataattag gttataattc aataaagctt   6600
agatattcta aaaactgtgt catagttttt agtcttctgg aggggcctca agttctatat   6660
ttgtttggag aaaagacttg tatgattaat ttacaataac ccgttgacaa ttttactaaa   6720
tatgtgtgtg cttctttaat gtaggagctg aagttgcttt ggttggtggc ttgaaacttc   6780
tagctagact gtcacttctt acagaacaag acttatggac tgttaatgga cttccaaacg   6840
aaaataactc ttcagatcat ctgcctttat tggcaaagtt cagacttgag ctctgactct   6900
ctttgatcac atactaattt tctttccaat ttgtattgtt tttcaaagaa tgtaaagttc    6960
ttaagtgtat gcatgttgtt tatttttgca ctgtggagat tctgaagcgg ttatgttaga   7020
tgctttgaaa ctccatatca gaagaaataa ctttataaca atgtttttna ataatgaaaa   7080
atattttcct gacaagtgag ctctaaattc tctttattgt aaaagagatg taaaggtttt   7140
atattctaaa tcctagtaaa attgacagtg atttttaaat ataatgcatc ttcctttgtc    7200
tgcttagtaa aaaatttcat ttcataattt tggcaagctc tgtagtggat ccaaagtatc   7260
tttgagttct tgcaaactac aagttgtttc ctttccagaa ggcttgattt cattaggaga    7320
cccctctatt gagttctaaa tagtttatct tagaaagcct tgggtcattc acaggtatcc   7380
```

6568

```
aaccagccat tgtttagttt gttttttgaag gggtttgata atgctttta  agttgtacag  7440
aatgcttaat ccatcttatt actgtcctga gccatgtaat atgcctgcat cgtgttgggg  7500
aaatgtttgg gaaatacaag ccagcataac gtgtaaagct cactctttca ccctggaaca  7560
gacaagaggt gggcttaata gaggcagaga ctggggatat acctttgttt ccctagcatt  7620
tttatttatt tattttttatt ttatttttatt ttttgagatg gagttcact  cttgttgccc  7680
aggctggggg tgcaatggcg caatctttgc tcactgcaac ccctgcctcc cgggctcaag  7740
cgattctcct gcctcagcct ctcgagtagc tgggattaca ggcatgcgtc accactccca  7800
gctaattttg tattttcagt agagacaggg tttccccatg ttggttaggc tggtctcgaa  7860
ctcccaacct caggtgatcc gcccacctca gctctcaaag tgctgggatt acaggcggga  7920
gccactgcac atggcagcat tttttaaaaa ttcagtttta agatctctgg tttaggggag  7980
agattttatt ttactgaacc agttctatag aaatttattt tattaggaaa tttgtctttg  8040
gaacaaagtg gcagctataa aattattttt gttaagcctc agaaatatga ggaagcctgt  8100
aaaactctag tggggagata ttaacttgga gacctaatgc tctgtaaata gtcatttaaa  8160
ctgttggttt tagtggtttt gtttctaaaa tgttttcttt taccgtgatg caccagtatg  8220
agatggtgct gacactttct atgaagtggt tatgagcagg tttaataaat cctctataca  8280
agtgtttgaa tcaatttttaa aacataaaaa gtggaaattt ccttttttgt agacagtagg  8340
aacaaggaat tatatgcatt tttactaagt agtaattta  cactgaattg taaatgtttt  8400
tacagtgagt tttattaata gaatgcttca ccttaaattg gaaaacaata atagtcttgg  8460
actaagtctt tgtactaaag catttgctat aattattttt aaaaaaacaa acagatgaaa  8520
acctcagaga aggcatgtgg attataagat ttgtctagta aaaattgtaa ttgaatatgt  8580
ttaaatattt aatttctcat tttggggggt ttttatttt  ttattttta  gatggtgtct  8640
cacgctatcg cccaggctgg agtgcagtgg cgcgaactcg gctcactgca acctccgcct  8700
cctgggttca agcaattctc cttcctcagc ctcccaagta gctgggatta caggcatgca  8760
ccaccatgcc cagctaattt ttgtattttt agtagagatg gaattttgcc atgttggcca  8820
ggctggtctt gaactcctga cctcaggggt gatccaccgc ctcgggctcc caaagtgctg  8880
tgattacagg catgagccac catgcctggc ctttgggggg attttaatta cagtattaat  8940
tatagttcta ggatttccca cattttatag tagtagtttg caggatatta tgtgccctaa  9000
ttagcagata tagacattat caaattataa tgatagtata attatccctt tttaatattg  9060
gggaaagaaa aatgaaaatt cattagttaa ttactgcttt gtgttgtgtg aatttattaa  9120
caaataacat tattacatat aggtcattgt taacaaacaa acatccctga aaacctctgt  9180
gaaaatttaa ttttttatat cctgattaat atattgtgac tttaggccca tttttcatgt  9240
gcttcacttt gatagagtta atccataaaa ttgctctttta ctttagctta tcaaatgaag  9300
tattattttg tggactggag gccaaaaagt caatgtgagc ttctcacagg tttttaaagc  9360
tccactaaaa ataattatcc acttgtcttt acttttgttg accagaatag ttggtaactc  9420
tgccagagcc tgtacttacc tgccaaaaac aattaaatct ggttaatgcc tgaaaccaaa  9480
tctctcagtc tcaagtgtta tactatccaa gttttaaatg gaaaggtaaa ctgtggagta  9540
atgaaatttt ggttttactg tacctttttgc tatcaagata atattcatgt ttgaaatctt  9600
gtctttattt ggaatttagt tactgtctgc ttttaaccttt tgctttccta aagaaagttt  9660
gagatccaga gagttcaagg gattggggaa agagaggcgt caagtcattt gcactttgta  9720
cctgtaagtt aggtaataaa ctattatact cgta                                9754
```

<210> 8870
<211> 288
<212> DNA
<213> Homo sapiens

<400> 8870
```
aggatggttt tattaaagtc ccatgctgtg ttagaaacat acaagtgatg agaaaaacat   60
taacttgaaa catgcactta ctggcattct ctaaaatacc attatacaag ttttcattta  120
attagaaaaa tacccactaa aacaatcaca gttcttctta aagatttaaa aaaaatgtat  180
tggccagaac aaagtccaag agaataaaca aagttctgaa ttgtatgtca aaaaactgta  240
catggttgta cataaaacta tagcttacaa aagactcagg tatagtaa             288
```

<210> 8871
<211> 619
<212> DNA
<213> Homo sapiens

<400> 8871

6569

```
ttatattgca agaagatgcc atctaggact tcataactag aaagaagaag tcagtgcctg      60
gtttcaaagg acaggctgac tcttttgtta ggagctaata tagcttgtta ctttaagtta     120
aagtcagcat tcattgacca ttctgaaaat cctagggcac ttaaaaatta tgctaaatcc     180
actctacctg tgctatgtca gtggaaaaac aaagcttggg gatgacagtg catctgttta     240
tggcatagaa tattttaagc acactgctga gaccactatt cagaaaaaca gattcctttc     300
caaagattac tgttcgttca caaggcacct ggtcacccaa gagctctgat gaagatgtac     360
aaggaaatga atgttttttc atccctgcta acacggcatc cattctgcag cctatggaat     420
caaggagtaa ttttgtacct acaggtctcc ttatttaaga aatacatttc ataggctata     480
gctgccatag aagtgatttc tctgatggat ctggggaaag taaattgcaa acctgcaaag     540
gattcagcat cctaaatgct attcagaaca ttcgtgattc atgggaggag gtcaaaatat     600
caccattaaa aagagtttg                                                  619


<210> 8872
<211> 1355
<212> DNA
<213> Homo sapiens

<400> 8872
agcatttggt ggacttctga gcggtgtcca ccttttagct gtgatgaacg gtgctgttgt      60
gaacacttgt gtacaagttt cagtgtggac gtgtgtcttc gtttctctcg ggtatatacc     120
taaggtggaa tcactgggac tatggtaact gtgtttactc atttgagcag ccgccagcct     180
gctttcccaa gtgtctgcac catctcacgt cccttcctgc agccttggga gttctgattt     240
cgccacatct ttgccatcac ttgttttttct ctgactttt gtttccagcc catgttgggt     300
gtaaagcagt gtcttgtggt tttcatttgc attttcatga tgactgataa tgttgaacat     360
cttttttgt ctttcttggc gatctgtatt tcttctttgg agaaatgtct attccgattc     420
ttgcccactt ttagttggat tattgtcttt ttgttgttga tttatgagtt ctttacatca     480
tctagataga agtgcttcct cacatatatg attcgcaaat atcttctccc attctgtgag     540
atgtcatttc actttcttga tggtgtcctt tgaggcacaa aactttttaag tttttacgaa     600
gtccaattta ttttttcttt gtcacttggg ctttttgctgt catatgtaag aatctttttgc     660
caaatccaag gttatgaaaa agaaaacctt caaaagtttt tttatttttag ctcttttatt     720
taagagctaa aataaaaatt ttaatagctg catgtggtgt gaagtaggga tccagcttcg     780
cccttttgcg tgtatctgtt cgttggccca gcaccgtttg ttgaaggctg ctctttcctc     840
actgaacagt ctcgacattc ttgtcaaaca tgagttgccc gtaggttatg agtttattcc     900
agaaccctca gttccactgc accgatgcgt gtgtctgtcc ttgcgccact cccacactgt     960
cctgttacca tcgcattgta agtcttaaaa ctgggaatgt aagtcctttg acttttttct    1020
aatccaatac tatgaacaaa atagatggca gatgaaattg aaaatttcct agaaaggtgc    1080
aaactactca aactgattca acaagaaata gacaatgtga atagatatat aacaagtgaa    1140
gaggttgaat tagtaatcca aaaacaccca taaagaaaag ccaaggacca gagagcttcc    1200
cagctaaatt ctaccaagca tttaaagaat taaaaccaat tctcacaaac tctttcaaaa    1260
gactaggaga gtgggaaatg cttctcaatt cattttatga gaccaatatt actctgatac    1320
cataatcaga caaagacatt gccaaaaaaa gaaaa                                1355


<210> 8873
<211> 507
<212> DNA
<213> Homo sapiens

<400> 8873
ggtgctggtg tgggcggtgg tggtgctggt gtgggtggtg gtggtgctga tgtgggcggc      60
ggtgctggtg tgggcggcgg tgctggtgtg ggcggcggtg ctggtgtggg cggcggtgct     120
ggtgtgggtg gattcctgga ggacagctgg gtcttgcatc cagcacaggt cctggtgcct     180
gggaggtgct taccccatgg ccccaaccgg cacaagtgtg gctgtcacag ctggggtctg     240
ggtaggtctg gcagccccat gggaacctgg ctgtgtgagc ctgccctggg gccttccatg     300
agaaaaccca gttaaggagc aacctggtaa acccttgaaa accaagtggg ccttcaccag     360
cttgaaaggc cgccgtgcc tttcctcctt ggccctcaca gcccagctcg gcatcgcagc     420
agagtcccgg tggtggagat gctttgccac tggccacca gagctaggag cctcggccaa     480
gggctccctc cttgcactgt ggtctct                                         507
```

<400> 8874

```
caaggtgggg gattgccagg gggagaaaac ttatttattg ctgtaagaca ggacccctcc    60
tcccaacctc ataccccacc gcacaccaga gctaaattca aagctgaaag gcgcacgttt   120
ctatacctac attcattcct gagggaccct ccagagggtc aaggtcccag ccccaggcag   180
ccctgtcaca gtgagaagta gttcctgtcc ttaaggaatt tccttctaat ccaggtgctt   240
gggcaggaac ccgatggcct tcgggtcacc aaggctgtct ggggagggagg cacagggccg   300
ccctctgtgc tgaggccgtg gaggaagcca ggaggagggt ggcttgcttt gcttccttgt   360
ctaattagct tgcttgaaga tgtggccttg gcagggagcc agaccatgg ggccaaggaa    420
gaggaagagc atcctcaata gactcactcc cccttccttg gtctccacgg gccccgtgga   480
ctgagggctg cattggggtc ttctgcctag gggaagtgct ggacctgagc tggagccact   540
tggcttagaa gccacaggat tcacttttca ctggcctttg cagtccccaa aggatcaggt   600
ctcagaacca aggctccaaa ggctgaggtc tccccagttc ctcctctcag aactcccaca   660
gtagctcaga ggccgggggt cctgccaact ttcatttgga aagttctttc gaacatctaa   720
actagatcta tcttagggtt tctttctctc ctagatagga tcagctccca gccctagcca   780
ttaggctgct ggtcctggcg ggggatgggg tcccctcgtt acccagtcct tcccagggac   840
ccaacttcct aacacaacct ggcttggaca tgaagaccct cccccaggtt accttgtaaa   900
gagtccctcc agagctggga tcccatgggc gcagcagcac acccagctcc catgcgtcac   960
tccctagctc tgtcccagct tttgctatca ttgctgactt ttcctcctgt ggctcatctc  1020
tgtccctgct ctctttgaaa acctaaacta ccaaggtgtc atgctgcaac tccctgccca  1080
gtcctgcaca aagccttggc tgtgtgtggc accccttgcc tcctacccca gagcagctgg  1140
ctccattggc ttctccctgc accagccctg tcctcagggg tcaggaaaaa gcagcacagc  1200
tttcttttcct ctcctccaga ggcctggaag ggaggtggag gtccagtaag ggcctggctg  1260
ccttggattt cttggtcctg ccttgccaac tgcaccctgt agctcctgct ccctgtgacc  1320
ccagaaccag aggtgctgcc ttccctgtct cctagacaaa gcacaaaggg atgccctgct  1380
tggcttgagc ctgcccaact gaaggatttt ctctgcccca gggaccttcc atccctgaat  1440
acaaggctct aggcaacttc tctctgggtg gtacacacta gaatgcctgg cattagccct  1500
agaaaggagg ttggggtgta tgggtagtga ctagggtgg gagaaaggtg gtgctgaaag  1560
gacagatgct agttgtagtt tcactcactc attcattcat tagtgcaaca gtactgagca  1620
ccacctgcac tagaggcaga ggggtgaaca agataccctt ctgcctgggg ggacgtccac  1680
ttcccatggg tttggctatt tccaggaaag cccctcagtc ctccaccctg ttctggctgt  1740
gtgtgaagga tgtgtgtgag caggcccaat cctttgcagc aagaatgaga ggtcagagta  1800
ttccattgca cacgcaccct ggggctgaca gacttgtgcc ccctagcctt catgcatgcc  1860
caagcactgg cagctttgca gcccctgccc caccagcccc ttgacgctct tcttttgttc  1920
tctcctcggg gatgagctct gctgctgagt agggagcttt tgcttgctgg gaggctctat  1980
gcatggattt ttttggtgac catacagcta gggctgagga tgggaacagg gacagagggc  2040
ctggctatcc ctagaagcac ttcatccatc tttacccacc caaacgggat cccttcacat  2100
ctcatcccca gtaagatgca agaaaggaat atctgagagc aagcagccct gctccagggg  2160
ccccaggtat gtgtagaggc ccagtggggg tggccacttg gtgtttctac caccccctgc  2220
catccagtct ggccccagta cctacctggg aggttggtgt acttggctta agtacttcat  2280
gctttattca ggctgcttcc ccacagcacc ggcaggaaat gaaggtgcac ttatatgcat  2340
ccctgcagga ataaagagtg ggtggcctgc ccagcccagc accacagcct ttccccagcc  2400
aggagagacc acctaaggat caaggcagct cctgttttct tggttctgtg acactcgagt  2460
ctgagccagc ccctcaggaa ttgcctcaaa agagaaaaac aaaaaaaagt cctccttccc  2520
aaggcctgct actccaaggt ttggctccat cccttgcctt tgggtcctgc ctatttcccc  2580
actcctggtc tcttatcttt ggggccacca gtggggagtc acccgggccc caatccctct  2640
aaggcgctaa gttgaaggag gccttccag agtgactatt ggtgccaaag tcccagttcc   2700
tgttggactt ggggtaaaaa ɔaggagatgg tgagtgggtg taaggcccaa atgcccagag  2760
aagttaactc gaacccatgg gacctgtccc agcctgtcag tccctgatga gtgtaacttc  2820
cttcccctgg gggcctggcc cttctctcca acccagtggc catgctttct cacccagcct  2880
tgtgcccggc ctgcatttct gtatatattg ctgtgtattg tgtgtatgta tgtattcctg  2940
gacaagtgtg ttcatctgca gcccttgcct gaggataagg tttaggattg ggtaaagatc  3000
agaataccag ggccagctaa ggcaacgact ccctccccaa acccttggga cctcagccag  3060
tcccaaggct gccctgacaa tcaggcaggc tccccaccgt gagccaagcc tcctctgcca  3120
ctgccagcat ggcccaaggg aggcttggcc ttgcgcttgc cagcctcagc tctgccctga  3180
caagggtctt gtatccaggg cagaggcctg aggtgaccca ggcttgcttt gtggctgatg  3240
ccagcaggct tggttctagt gggcaccact ggtgggcaac ctccataact ggcccttagg  3300
```

```
cctaccttcc tacacagcta ggctataatg ggcctgagtg agagggtagc ttccccagcc   3360
ccaagcacag gcagaggggt ggagagcaat ttttggtttt attttttgttt ctgaagtggt   3420
gcctgtacct ccagcccca ggggccttcc ctggccacac ttctctgccc cacccaggca   3480
tcgccatccc agcactttgc tccatgtcac ccgtaagatg cccttttgctg aatgtacctg   3540
agtgtatgta tttaaaagga ctcacatggg catcagagaa tttatggctc tgtatccaat   3600
aaaaaagatg gtgaaactgg tctatctgcc ccagagaggt                         3640
```

<210> 8875
<211> 19447
<212> DNA
<213> Homo sapiens

<400> 8875
```
aatttacaaa gttatctgaa gtcttacatt ttatttaaat agcctccagt aagaagagag     60
tgggccaatt actacccctt ccttgtaaaa tgaagtaacc aagccaagga gggtaagtgc    120
acccagcagc cagccagcca tgtgatgggt ggggtgcctc tcagtggggg cggccacgac    180
acggccccgg cctgctgctg tgggagcatc cacagtcgag cgggggttct tgatggtttc    240
atctacagac acgatcaggc acgcagcctc agaggctgct gtcagcgcat tgatccgcac    300
catagctggc tcccacacga aagcttcaaa gttgtcagca atgtcctcgt tgttgatgtc    360
tactccatac catgtacccc cctaaaagag taggaaaaga aaggaggtaa tatggaacta    420
ctttcaactt tcctcttgta aactggtact ccaaaagaca ctgctaggaa cccgcagact    480
ctctgaactt ggtggcattt cgctgaagaa tactgcatct tcctatgagc atgccaggaa    540
cctggaaaca cccctactcc cgccaactcc tccccttagc cctggacata ccacacaaga    600
cctctgggat cttctcccag gcaagctgtt gtgttttggg gcggccccat cctcaggtca    660
cctgaggact atatatatat atatatatat atatatcaaa caatgagttc tcaagataaa    720
caggaataac aaaaatacta tcccatcttt catctcattg cttcaaatag cccgatttta    780
cagatgaggc aagtgagaca cagaggtaaa gtgactttaa gcaaaagtcc taatacaagc    840
cagaagcagg gtcattcact gggtgctaag cacttaacaa acctctatct atttaacaaa    900
tggagaaatt aaactctcag agaggttgaa gtaactagcc cagggtcaca cttgtagggc    960
tctggagagc ttcaccacac cagtaagccc actccatgtg gtcagtatgt gcttccagga   1020
aggtggatgc aaggttcctc ctgtggtacc ataagaagca atcatactct tttttttttt   1080
ttgagatgga gtctcacact accacccggg ctggagtgca gcggcacgat ctctgctcac   1140
tgcaagctct gcctcctggg ttcaagcaat tctcctgcct cagcctcctg agtagctggg   1200
attacaggtg cccaccacca cgcctggcta atttttttgta tttttagtag acatagggtt   1260
tcactatgtt ggccaggctg gtctcgaact cctgacctca tgatccgccc acctcggcct   1320
cccgaatgtt gggattacag gcgtgagcca ccgcacctgg ccacgatcat actcttggta   1380
gaagcaatga agaaaccctg gatctcctgt gctagcacca tggctttcct tctgccctca   1440
gaggagggag ttggtcaggc agacaggctg gggggagttg cagcctatct cctgggccag   1500
gcgtgcacag cttgagtaag cacagctcac attcagaatc tagccccacc cgcccaaacc   1560
ctgaaccctg gggagagaaa ggacccacct gggcatgccg agcccgcagc ttgttgagaa   1620
tgtttgtggc atcaaagcca gcattgtcac acagctggcg tgggataatc tccaaggcct   1680
tggcatatgc cccaatcaac agctgctgtt ttcctggaat agtccttgag taatcccgca   1740
ggtacttgga gagttccatc tcaatggccc cgccaccagc caccactgaa tcattctgca   1800
gagatcagac cacctctcaa tgtaagaggg cccctggtcc aagcttccat gctgggccac   1860
tcagtaggtc ccttcagccc agaaagagtg gttcttcatt ccttcctcca tcccaagccc   1920
caaacgccca gacacagccc ctatctagaa catcccaact tcaacctggt gaaccttatg   1980
gtttctgact attttcaagg tcacctgcag ctcaaggaca ctggcacaat tactggaata   2040
tctgactaca ttagctccag tttgctaaca aaacgaagtc tttttcttct gcttgctctg   2100
ttgcccaggc tggagtgcag tggtgtgatc atagctcact gtaacctcca actcctgggc   2160
tcaaggcatc tttccacctc agcctcccga gtagctggga ctgactacag gcacatgcca   2220
ccattcctgg ctaattttttt tattttttgta gagacaggat ctcgctatgt tgcccaggct   2280
ggtgtcaaac tcttggtctt atgcaaccct cccatctcgg ccttccaaag tgctgggatt   2340
acaggtgtga gctaccacgc ccggctaaaa gaacaagtct tagctttcaa ggcaggatga   2400
cctattttttg agaaactgag gctcagtttc tctaccattt gtggggcaaa tcagggctca   2460
ccacaccacc caggaaaggg caggttatat agagaaggaa tcaccacaca aatccaaggt   2520
ctgatcagct agggagatag gagagagtag gctgtgcaag caggaggata tcagcccagt   2580
accttgatgg ccctcctgac gatcatgatg gcatcatgca gggaccgctc tgtctcctcc   2640
ataaactgct cggcgccgcc acggagaatg aaggtgcatg tcttggcctt ggggcagcca   2700
gtaaaaaaat tgtacctatg cccaggatta aacagtacac acatgaactc ttgtctgcca   2760
ccatcctact gtattgtcct cactgccagc cccccaaca ctcagcagct gctcttacat   2820
```

6572

```
tcttcactca ggttacccaa tcccaacctt atagacattt tcttggaaag gtctgcagct   2880
gtaccactag ggcataaaag attgtggagt caaggctttt agatcttcct gtaatcctgt   2940
atattatctg agctctttat ggctcaaagg tgagactctg taaaagctgt ataccacttt   3000
gtacacaaag gtgagacttt gtaaaagctg tataccacag ccaaaagatg gcagaagacc   3060
agacccaggc aggtttgtga gctcggcctg ggcccacggc tcacctctcg cctccaatct   3120
gggtctcttc aaacacctgg catcgaccca gcacatctgc tgacagagca .ttcacactgg   3180
tctggattga gcctccacag gcctagggag caaggaaggc aagatctagc agtgaaggtt   3240
cccgaggcca ggcagcttcc tgccacctcg tctcaaagcc aattcccacg catgccccca   3300
gagcctctac attacccgcc ctttcccttg acttccaggc gacccttccc cctctctgaa   3360
agagcaaaaa aaaaacaaaa tagaactaaa acacatcaaa ggcaaacaga agaagttaaa   3420
aggagatagg gacccattca attcagctta tactccctcc cctaaactag ggtggcactg   3480
ggtccagcaa ctgaactcag gagtacttta aacctaaaag tatcttttgt gggatgctca   3540
tgaaagggaa aaaatctggc tggaagaatc aatatttgag tttgtccagc taatcatagc   3600
attactgcta ggttctctca caaaccagat ttctggactt gttttggtta gactaaagta   3660
gtttgtgcta ctgggcacac acacatggaa atggaatgtg tcctggaaaa aaaagagtta   3720
aaaaaaaaaa acagggctca attcacacgc caacctgaca gtacactctg ttataccagg   3780
ggtcagtgaa aacccttcag ggccacaaag gccgagaagc agcctgtgaa aatctggtta   3840
ccatcattgt cctcttcaga tcctcctcag gtactcggcc agcacagaac atgtccctgt   3900
cagcaaagta ctgggtggcc acatccccaa tggggagttt ggacaagaca actttggctc   3960
cagaatgatg gatcttctct aacttgtcat agagaatgtt ccactcagca tcaacaattg   4020
cctgataatc ctggagagac ccagaaaagg atgagaatgc tttgggggtga aggttgacat   4080
atacggtagg gtaaaatata cccatctgcc cccaccaaat aaaacatgct gattcatctg   4140
ggaattaaca gagataaaca gaatagctac tcctcagtcc aagcaaataa ggaccccatg   4200
agatgactta ggaatcacct gaaactcccc aacacaaaag cagaaagtaa ccccaaggct   4260
gagaaccaca gctggtgctg tccagatgcg agaaatagtt taaactggct gaggtctaga   4320
ctcttctgag gtgctggatt catggagttc ccaataagac cccttggcc gggcacagtg    4380
gctcatgcct gtaatcacag aactttggga ggccaaggca ggtagatcac ctgaggtcag   4440
aagttcaaga ccagcctggc caacatggtg aaaccctgtc tctactaaaa atacaaaaaa   4500
aaattagctg ggcatggtgg cacatacctg taatcccagc tactcagaag gctaaggcag   4560
gggaatcact tgaacccagg aggcagaggt tacagtgagc cgagattgca ccactgcact   4620
ccagcctggg caacagagcg agactccgtc ttaaaggaaa aaaaaaaag accccttccc   4680
caagaactgc tcaaaggtgg gtgacatggc tacctccaga ggtagcctgg gtaacatcaa   4740
caatgagagc acacctgtct ctgcagcact aggtctagtc tagaagtgga ggaactcaca   4800
cttgcaccaa caagaggaac caaaataccg ggcaggctat gtagctagag agtccctgcc   4860
atccccttcc ccaggaccac agcgtatttc aacaggtgtt ccctatccaa atttcctcag   4920
gtcaaggtca ctcagggaga acacagagta tggaaagaag ggggcctagt acttagacat   4980
caatattcag gggggcagga agagaaaggg gcccacaata gccatgaaga cccagggctc   5040
tggctcagaa agctgcccat ttccatgccc ccaccaactg gtgaacccac ctacctcaac   5100
tgtgtggact cttatctcag cattgtcttt ctcagctttc aactcgagct cgacattcaa   5160
aagggcaatc ttgggattgt ggtacttttt gggttgcatt tcaaacccag cgtaagagaa   5220
agtcttcttg aatgcaacac cagctaccag ctgagaatcc tgttttaaaa aaacaaacac   5280
tttaatggtt tggtactaac atgaaataaa atcaagctag ttgtttgctg gctagtgctt   5340
atccattcct gtgagcctga gctaatcatg tctttatttc actgctgtaa cacagccttt   5400
ctgttatcat aaaatcgaag acaaatcctt tttttttttt ttaaataaca caacatatta   5460
tttcagtcac cccttaagca taaggaaaat catctggtta gcagaggcaa agcatggtaa   5520
aggcctactg ggctgtcctc taagactggc ctctgcagca ctggccgatg gataatgctg   5580
tacaaacttc caaaaagtat gccagaagag gagccaggtg tttacaaaga aggcaaaaca   5640
aaagctgtgc aatgctaccc tcttctatgc cccagctccc aaatctcaag tatcctcctg   5700
tacacctcca tgtacccata atttgcactg caccctccac ccccacaccc ccaacagcat   5760
ggatactata gccttgacgc ttcctccctc cagaagatga tgccaaaagg tcttaagaat   5820
cagaaatccc ctgcataatt tctaagctat cactgcagct cctcagacct caatccctca   5880
aggtagggat cttctaccac ttgttctgca acagagcttc tctgtgggtt ggatttaaca   5940
gcagggcata atagaaagca cactgcaccc agggctgact cagcactacc gtgagactta   6000
ggttccaatc tcagatcttt tccttactaa atgaccgagt catttcccac accataaaaa   6060
agggtattca gttcaataac ctttagtttc tctgccagtg ctcatctaca attctaatct   6120
ataatactgt aacccatggg tgaagagtat ctgtccccag ttcctgcatc attcaaatcc   6180
acagcttcct aaagggagtg atgcctgagc tgaatgacag atgagcagaa attagtcaaa   6240
gagaaaaaag gaaaaagggg gttctcctaa gaggtgggag gcagtgttgt ggaatcagag   6300
aatgaaaagc catttgaagt tgctagaatt tagagggtaa gaaccagcca gtgaagaaga   6360
gagaggggaa gtaggcaggg gccagtttag aaggatctta caggctttgt taatgcctgg   6420
ctttgtatag ggaatgtaga tatcagaagg ctttacgcag aagaataaag taggaaactt   6480
```

6573

```
caccctgcaa atagtaaata agtacaatgg atttagggga tccaagactg gaagaggggt  6540
ggcaatagta ccagaaagag taaaagagac agactcaata aataattagg aaatcacgag  6600
gtaaaatgga acaatggtaa ttgacaggct ggagtcagaa gggttttcaa ggatgatccc  6660
agatttctgg tttgagtgac tgaataaacg gtggtgacac caactatgac aagaaataca  6720
gaaaatgcta tcacaggagt ggaggacaag ataaagcgtt taacagcagt tagacacaag  6780
aaagagcatg aggctcagag gagaggtgag tactaaagat atggatcaga aaattcccag  6840
ttaaccctgg taacaagtaa ataatcacta ccactatttta ttgaattctg ggtcaggttt  6900
gtatgtattt aacgaatgta ggacagtctc ggaaaaacgc aagtgtggct tagagtccct  6960
ggctctcttg ccaggtaaga ttattagtcc tgatttctaa tctatgtaga ttagaaatgg  7020
atgccatttc tagattagaa gtggatgcca atctaatctc aaccatttat ggaagtagga  7080
aggcccaaga gaagatgaaa aatcgctact aaagcagtga gtaaagacaa agtcagcaag  7140
ccatgatgaa gatagggaaa tggctcagat gacctccagg ttcctcacag ctttattaca  7200
tacagagaat ctcagcccac tggtctgaca tgtgccacaa taggaggga aatggcaaag  7260
tgggaatgca atttgggagg gtaaaattta aagagaaggg ccaggctatc tttcaagctg  7320
gtcctcctct atccaaatcg cttcagttga ggtcactgac gaagagtaat aagtaaagca  7380
ggccagagac tgaaaaggcc aaaagcagca tggagatacc aaggacgttt ccagacagat  7440
actactgtgt taaaaagaag gagttgtgct gtccaagaca gtagccacta gctacatgtt  7500
gccatttaaa tggaaataaa attaagattc agttcttcag ttacattagt tgcatttcag  7560
gtgctcagta gccaagtgtg gatggggcta tcatattgga cagcgcagat atgtaacagt  7620
cccaccaccc tacagaaagc tctactggag ggtgctgagt taagagctac acacgctaat  7680
gtggatcaat ttctaaaata tgttgttgaa tggacaaaag caagctacag aacactatat  7740
aagcaatctt ttgtctttaa aaaacagtat ttacatacat gttcatatat gcacaaagta  7800
attctgcaag gatacacaca aactaatagt ggctgtatat ggggcagggg tagtgcatga  7860
aacactttta actttaggcc ccttcacagt ttgaaatatg tatcatctat tcaagataaa  7920
tgaatgaaag aagggcaagc ttaacagtat cacttaggag taagcagtga actgaaaaat  7980
ccctctcaga tgtattaatt gggaggtcat tgatgatttg agctagtcct actacccctc  8040
caccacccac tgacacagag aacctgagat tctgaaaatc atacagtcca attttctact  8100
ctgctgacaa ataatatcca cagaggttac caagttcatc tagtaacagc ctctaatggc  8160
agtatggaaa gtacaatgta agtctgactt cctgcctaac atgcattctc tttattcctg  8220
taatgagtac ccctctgcca tatgaagctg tctgaagggt caatatgaaa gcaagagctg  8280
tctaggaagg ccacagcagg cttacctcga gggctccacc ctgtaccttc ttgattccaa  8340
tcattttaag ctgcagcaaa tcatcgagca tcatcactgc atccaccacc atcttagcaa  8400
agaaagcttt ctgctgggag atcagcttgg agctcagagc ggtcatggca cacttttcca  8460
gcagcttcct ctgctccctg ggacacaagg gcagaatctg catcaggtct tgaaaaccaa  8520
atccctctta tctgattcta ctacagtgtg gaggtagttc ccttccagtc tctaaactca  8580
gccctctcca acttcacctt ttgtatcttt agggcagatt atcagtgaca gatggtgact  8640
gcagtcaaag atctcatatg tggcagcttt taaactacag tcgacagctt cttttgtgct  8700
ctgtgggctg ggacacagcc aagggtctgg caggagccaa acagccccag gcacatagag  8760
ggattgcagc atgcttctgc atccaatttg gccacaggaa gtcagtcaag gttctgacaa  8820
aggcctgaca cggtgactca cacctgtaat cccagcactt tgggagtcgc aggtgggaga  8880
tcacttgagc cagtagttca agactagcct gggcaataca gcaaggctcc gtctctttaa  8940
aaaaaaaaa aaaacccac tacagactta cactttatct gccttcttca cggtcacagc  9000
aatctctttg atcttgttaa ctgcctgcca agaacagaag ttgaatgagt ctctcatgct  9060
aaagacaaac tgctgaagtg gacctcaatc tctcaatagt cctgagtctg ttcactccca  9120
aatcctaagc atttctactc tacagctgaa aaaacacttc taggtcttgt aactgctcag  9180
aaaaatgtaa aactctatag ttcagaaaat tccaagtcag aaatgcagag tgggtataca  9240
gttctgaaga atcagggtgc ttccaagatt ttgctctggg tctgcaggta acacgctaca  9300
acgaatgagt ggaaacagct gtgacacgag attaagccaa acctcctggt ttactaaaaa  9360
cacctacgac aacttctagc actttatata ttagttatat ataaatatg catacaaata  9420
tataaacttt ttattttttt ccaaagtact cctcatatat tatttcattt taatgtcacc  9480
actcaaatta gagatagcaa agaaagtaag gcctagaaag attaaatgac ttgccccaga  9540
tcacaaatga aggttagagg gcaaataata gctaggtctc aatatacacc atgaggtgct  9600
tgagtatagc atgtagtagt agtatgccat gagtctctta gtccttacta aaagactatg  9660
tctacatcat agtctaccag gctgactcta acctgaggct taaagagatt aagtaataca  9720
cctcatcaaa tggctacaga ttagtagaac tgagattact aaggagatgt cagaaaatgc  9780
ccaaagtacc ctgttcccca gtccctccac actcctgaaa agaaattccc cttcctaaga  9840
gaaatgtgaa ggtgtccagg cccaagagaa ggttaatcag tactgccata ccagctgggt  9900
ggctgtgcgg aaagctcgaa tgatgatctg ggggtgtaaa ccttcctcca catagggttt  9960
cacctgcttc agaaactctg cagccagcaa ggtcactgag gtggtgccat cacccacctg 10020
gaagatgatg acaggaaata cacgttttct gatgttcagg gaataaagcc ctgaaactcc 10080
attttaggc acgctaccca tttaaactgc atattattta aatggatgtc aagctttttt 10140
```

6574

```
ctggaagcac aggttttttgc aataagtaga aagaagctaa tggtagttac atatccatca 10200
tgtcaaacag tcctgggcta ccaaattaat tccccagaca gccccattct ctaaagaggg 10260
ctgatgtgga caatcaaatg tcctcagggt aaaaaattac acacatgaac tgagaactta 10320
tgttacgtac aaggcattgt gatgaataaa acagtccttg tcatgcttat tgtaatacaa 10380
tacttaaaat aatcatggta ccaagaagca agagacaaac attgtttaag aagcaaaagg 10440
tggctgggca cggtggctca cacctgtaat ctcagcactt gggaggctg aggcaggtgg 10500
atcacctgag gtcaggagtt caagaccagc ctggacaaca cggtgaaacc ctgtctctac 10560
taaaaataca aaaattagct gggcgtgatg cgggcgcctg taatcccagc tactcaggag 10620
gctgaggcag gagaattgct tgaacctggg aggcagaggt tgcagtgagc caagatcgca 10680
ccacagcact ccagcctggg cgacagagtg agactccgtc tcaagaagca aaaggtactg 10740
caggagttcc tttctttttt aatagagaaa gggtctccct atgttgtcta gactggtttt 10800
gaactcctgg cctcaagcaa tcctcccacc tcggcctccc aaagtgctag aattacaggc 10860
atgagccact gcatctggcc aggagttaaa aaaaaaaaa ggtaactttc agtcaaatca 10920
cactaaaaca aacgtcctag gaccagccaa agttctttat atttcaaaaa ctatgaggag 10980
gccaggcacg gtggctcatg cctgtaatcc cagcacttgg ggaggccgag gcgggctgat 11040
cacctgaggt caggagttcg agaccagcct ggccaacatg gtgaaacccc gtctctacca 11100
aaaatacaaa aattacccgg gcgtggtggt gggtgcctgc aatctcagct actcgggagg 11160
ctgaggcaag agaattgctt gatcccagga ggcggaggtt gcagtgagcc aagatcacac 11220
cattgcactc cagcctgggc aacaagaatg aaaccccctc tcaaaagaaa aaaaaaaaa 11280
actactggga ataagcagat tactagtctg ctaatctttt ttagatggtg cttttctgtg 11340
atgggatcta aatcctattt aatgagggtg aaaaagaaaa agagctttct aagaaaattg 11400
gataaactct aaactggaag aaatttattt cggtagagat ggggtcgtgc tgtattgccc 11460
aggctgatct caaactcctg gactgaaggg atcctcccac cttggcctcc taaagtaatg 11520
agacacaagc atgagccacc atgctcagcc cagaaattta ttttaacttt catgtatgtt 11580
cactgtgtaa ggtaagaaat tctcaagggg caaaaaaaaa aaggttacta tagagaaggt 11640
ttaagtgggc agatttctgg accaaaaggc attattccct cgttgaagac aaaaacaaat 11700
caaatccaga ctcttctctc tttaatttta tatatgctat acctgtttta taggcttggc 11760
tcctaataaa ccttttaacg taacttcaag acatacctgt agtatacata ttttgcagta 11820
ctctaaaata caaaaccttat ctgtcaacac atttattaat actccagtgt tagaatttat 11880
ttttaaaaga tagactggtt aatgccatga attatacact taaacatggt attaagaata 11940
aatattatgt ctgttttatc atcagtttaa aaaaaaaaaa aaaaaagcct ggtgtagtgg 12000
ggaatgccag tagttccaac gactaaggaa gctgaggtga gagaaggctt gagccccgga 12060
gttcaaggcc aacctgggaa acatagtaag accctatctc tttaaaaaaa aaaaaaaaag 12120
aaagaaaggc agattggaag tcttagttta cagccccatt ttgtaagaga tgagaagtca 12180
aattatttaa cctagcaact cacacaaatg acagcacaca acctgttaag atctcaggca 12240
gtagacttat atctaaagac tgttgtcatt caccaatgta ttaatggata tgaaaagcta 12300
catgtaacga aatagtatga attttaaaag gctgttaatt ctaaatactt ttataagcat 12360
gtattacttg tacaattata attatataaa atcttaaaaa aatttaatag aggagaacta 12420
aggagcaagc aagcatgtgt ttcaacctcc atttaaacac acaactattt tcctacctca 12480
gcatcttggg atttggcaat gtctaccaaa gtctttgctg caggatggac aacatcaaga 12540
agtttcagaa ttgtggcccc atcattagaa attgttgctt tgccttaaaa gaaacaaaca 12600
aaaatctaaa gccccttttct taaatgctgt cttcaagtgg gacctagaac ccatctacac 12660
tttactggga tggggcagag gggatcacgg cagggctgaa gggaaaggat acctatctga 12720
tctttctata cagaattagc tctgtacaca aagggtctaa aatcacaagc ttttgcagac 12780
cacagactcc caattttcct tgaagagcaa ttaatacagg tcaactggat acagaaaaga 12840
ttttttaaat aaaagtaacc acttagatat tcttaccaca gttgataccc tcacacatca 12900
attaatatac caagatataa acaggaattt tctcatcttg ataacaatgg aagtgaacac 12960
aggaaactcc agatggttct atttcatgtt tctaggccac gtctccctat gaggcaacag 13020
gctcctgagc ctaggttctc tcatatagtc ccacacgggc tcagcagtca ggacaatata 13080
agaattggaa ctgcttcaga gtgagtcatc tttcaacgat cttaaaagca gtgggatttc 13140
tgataccaac ctatgctagt cccaaacacc ccctcaggag cctcctttcc tgcacacagg 13200
cctgaggaac tctgtagact tacctctgcc atctacaata agcttgtcca tgccacgggg 13260
acccagggta gttcttacag cctcagcaat cacctggcag gcactgatgt tactcacaag 13320
ctggggggatg ccttgggagc tatcagtccc ctctttcaat aggataactg gtgtgggcta 13380
gaaagaaag aaattaactg cttttaataa tcatctatta taatgagact ggcaggggaa 13440
aggggaaaat gctcccatct ctcccttaac agaattatct agaggtcttc ttaaaccaca 13500
ttcccccaac tgtctaccac atccattccc caaccagcct ctacctccag agacactatc 13560
aaatttagcc taccctgcag gtatgctaga caggaaaatg gtttgagaag cactgaccta 13620
atctaaaaga aaaaatcatg agttctccag tacccagctg aatgaccatg gccttttcaa 13680
cttctgacct tactccctgt gctgaggaat tgggtcacaa cacaggagga agaggcagac 13740
cctgctaagt gttcattccg cagcaaaaca tccacttgtc tgtgttacag ctcaatctta 13800
```

6575

```
gagaagcaga tgggacactg atgcaaaatg caagatgcca agagcttgag gtgttgtcct  13860
agagatgcct aggcagtcag ctttatgtaa cagtgatgtt cagctgcagt gtaggaaaac  13920
aggcagagaa acaaacagca cctttgccct gttttgaaaa atgatggcaa atctaattca  13980
tacagcaatg tttccatctc tcatgctggc tgaataaagc ttctgtgtga ctaatttcca  14040
atcagatacc ccaaagaagt tttcctcttt ctatattgca ttggtctcca gaacattccc  14100
tatccccgta agggcttcat ttgcagacct gctttagaaa ctgagaaaca gggatacttg  14160
cttgtttttaa agggcccgct cagatatctt tgctctagtg accaccatta ttagcagaga  14220
gagcaatttc tcagcttagc aaaccagact actttctctc cacattcaaa tctgagcctt  14280
cagagataag cccacgaact agatccagtc ttctcaagtg tttctggcta attttgtgtg  14340
tgacacagaa tgtagtaagg ataaatacta tttcaaaact tttattgtgt taaatttgtt  14400
actaggctat gattaaaaat gtatttctta ctgtggaatg caataaaaag tttgaaagcc  14460
atcacctagt ccttagaggt acgtggatgt ctgagcaagg aaggcacagg aaagcacaga  14520
gctttcccaa cctaacaatg aggagtgagg aattcctgcc aaagacagag tcttgccact  14580
catgaggctg attccttatt aactggtcaa ttccttaaaa agttcaactc ttttggccag  14640
cgcagctgga gggtagtaag caagaggaag actggaataa agctgaagag gcaggcagga  14700
accagatcac atacacactc gtagacacac tatggtgagg agttcagatt tcattcctaa  14760
aaaggaaagc cctgggaagc tttcagcaga ggaatggcat actgtgattt acataaaaaa  14820
caaaaaccac tgtagaaaaa agaggatcac ttgagctcat ggagttcaag accagcctgg  14880
ggaacatggc aagaccctgt ctctacaaaa agaaaacgaa aaatacccaa taaactctac  14940
ggaataagag agtgggagta atttaatata ttattcattt tttaatatat atttctaaga  15000
gacagggtct tgctccacca cccatgctgg agtgcagtgg tgagatcata gcttactata  15060
agctcaagcc tcctgagtag ctggaccgca atgcatgagg taccacacct ggctaatttt  15120
ttaaatttgt atttaaaaaa tgttgcccag gctggtctcc aactcctggc ctctaacaac  15180
cctcctgcct cagccttctg aagtgctagg attacaggca tgaggcacca tgccaggccc  15240
tcattaaatt tttttaaatg cttgtcaaat aatcatacat tactcctttt attttttatt  15300
ttaaaaagaa tgcttgtcat gtaaacccct acatttggga tcaggcgtca actgaaggga  15360
aaattccttc cttttgctgg agtgtcccag gtctggtggc aagaaatggc ttctctatac  15420
tcccagcatt cttttctggct cttcagctgg cccagtccct ggcaccttct gtaagggaaa  15480
gatgtgtgtc ctgaaaggcc ctaccatctc ccagtcttgc taaatcattc cttatggcag  15540
ccccaagtct tctctggtcc acccctgcca cggatggagt cttacacttt aaatcaaaaa  15600
ctaacatgag tctcaatcac ttcctatcac cttcaacagg ttctttcacc tcaacaggtt  15660
aacttaccca atgcttgtgt atactttttc tcacctcaac ctgcaaagtg tacccccatc  15720
taaaatagtc actctgccat cttctaccaa aaccactttc tcaccaccag gccaccaatt  15780
cctcagagct ccaattcttc caagaagttt tctctacagt aataaacaag ggcatctgaa  15840
tagggaatc ccataacttt ctcttcactt gcccttgctc gcaacttttt atcaccatcc  15900
agcttaagta caagctttcc aaagacaagg accaaaataa ccttaatttg aagagtgcca  15960
agatttggcc acacatgaag caatattcag cagcttttgg ggctgaaaat ccaactgcta  16020
cttgtaagtg cttgacagca ctggcttctt dacttttggg gagaaaagca ctggcactac  16080
agtaacacta catttactga gagttcttaa gcacaatgca agaagagctt ggaagcagct  16140
aaccacagat tccccaggtt ccctatgctt tgcaggccct gaagaaacag caggctgggt  16200
agagagcatc tatggggtgg aaaaggtggc agagctggat tgagtcaagc caagacaagc  16260
aggataggtc ctcttctaac agttccccag cagcaggcac tgtatgcaaa gtccagtttc  16320
catcccttag ttactttcaa cctcgctcct tttttttatt cctctaataa ataagaaaca  16380
aggtcgggtg cggtggctca cgcctgtaat cccagcactt gggagtcca aggtgggtga  16440
atcacaaggt caggtgttcg agaccagcct ggtcaacacg gtgaaacccc gtctctacta  16500
aaaatacaaa aattagccag gcgtggtggc gtatgcctgt aatcccagct acttgggagg  16560
ctgaggcagg agaattgctt gaacctggga atggaggttg cagtgagcca agatggtgcc  16620
actgcactcc agcctgggca acagagcaag actccatctc gggaaaaaaa aaaaagaaaa  16680
agaaacaaga gcagactcca gtaattggcc acaggtataa tggaaggttt tggaatttca  16740
gcttactgat cttcctcttc atcctacttt aaaactttca ctaagcatca ttaagcttaa  16800
tggcttacaa aacaagtgtg tctatgccaa ggcacacagc gctcaacgcc acaaaggcaa  16860
ggacatacat tttatgcaag ctgtaccaac atcacaggac tgaggtttca ggggacctttt  16920
tcacctctct ttcgattaca gaagtattct agaatatcag gggccaattt gaagacagga  16980
agactcttgg agatagaagt ttcacattcc aaaaatgggg aggagatatc aagagccaat  17040
acagcaggga aacgtcaatc tgacagagga ggggtcagtt cagggaaaat ccaagtgtga  17100
tgatctagag cccactggtg aagttttatc acggcagaga atggcggttc tgatccctag  17160
ctgtgtgaat gtgaaccaaa gctcttacgg aagccctggc agcgggatgg actgatttca  17220
gagatgaaag gaagcaaaca accacctcgc cgagtaagag ctaacattgc tgagtgctta  17280
ctatctgcta ggcacactga caaactgaga accagaaatt aaataacatg ctcaaagtca  17340
cacagctagt aagtggcaga gctaagttac aaacctaggc attcagtgta gctccagagg  17400
ccttactctc aactgctgta ctatgctgcc tctgcacaga agatgaagac gacttcaaga  17460
```

6576

```
atgagcaatg ctagagacat aaaggggaga ggaagtactg ttaaatgcta atttccttct   17520
accttgggta caagcgggat tcatagggca tttggtagaa cacctaaaag gtgtctgcgt   17580
ccctaacagg acagagaaaa gctgcaggaa gcacagaaag cagtatctca gtcagggtca   17640
aggccaaaat gaataagtga actgccaagt gcacagaaag cagtatctca gtcagggtca   17700
aacaccacct cggaagctgg ccctactcaa taacaaccca ggagatacca tcgaggcttg   17760
ggacccacgg aaagtatcta aagctccgag agacagagaa aagaagtgtg ggaagtaggg   17820
ctacaaggag cactttaggt ggctccagga ctcacagcaa ctccctcgcc ccaaatttca   17880
agaaaacgag acccagagtt aggtagccaa ctagaaaagc ctttcttatg tcaccagagt   17940
ccgagcctgg gtcttcccac ctccgataca gtgtctccat ctacctttcc cgttctcctg · 18000
gctgagaggc tgcaaccccc agcaaccacc agggcctggt acattcagta ggcactaaag   18060
acgcgtttat ttaatgactg agcgaatgag tgaatgaatt aaaagtacta gggaaggcgt   18120
ctgcttctct gcacgctgcg gtgagggtca gcgagtgaac atagtgagtc cctaggcggg   18180
cacaatatga ggtccccaat gtgcctgtgc cggttccaag aagcacacgt ctttacagcc   18240
cgcaaatctc agagcagccc cagcttccaa gtctagctgc cgaccgcgta accacggccg   18300
acctgcactc gtttcacgca agtcccgatc atgcggggct aaaaaagagg tccccgacgt   18360
gggttcgcgg gcccgaagca ccctgggact tgtagtcccc aaccggccag cccagagact   18420
cctctaaagc cccacgcagc cctcgccaac ggctccagcg ccgtgctcgg gccgagccag   18480
gccgcggctg gctggggtcg cccctaagct ggggatctgg gcgaggacag aggcggcaag   18540
caaaagaggg tcctacagag caagcccagg ccgagcggcg ccggccaccg gccagatggc   18600
agctgatggc gacggatgcg cgagacgcca ctcaccatca ttttggaagc ttattcagcg   18660
gcccgccact ctcccctctt ctccgagacc gggccgccca gcaacccaca atgcctcgcg   18720
caatagaaat acccagaagc ttgggccggg agaggaagag aacggaccac ttccgctact   18780
ctatggttcg ttaccaccga ctcggtgcgg ctagaaggac ctgaggctgg gcttcgggga   18840
ctctctagtg aggggcgttc attaaagagg ggtcgccgca tttcggtcgt gcttcttaga   18900
gcacggaggg tctttgctcg gcccgcatca cctactaact taattccacc ctcctccatc   18960
cccggacgcc agaccaagga atgcaataaa ggcaaaagtg tgggacgcaa agtgtgggat   19020
aggctggtgc caaagcactt tacgtgagcg atctcattta atcctcacaa ccctattgcg   19080
ttggtcctat taaggccatt ttactgatga cagaaaggag gctgagaggt caaggtgtcc   19140
agtgtcacag ttacatagtc agtgtcaacg ggacgagcgt gggaagctgc ccccaatgcc   19200
cgttttctgg ctttgcactg gccagaggct cctcgtggat ggcgtgcgcc aggccgcggc   19260
cccagcgcct atccacggtg agcgcgcaag cgttggtggc actgggcgga agaccccctg   19320
gcgcaagacg agtgccttcc cgtgaaggcg tggggaggag ggaagcgcag ctcggaggag   19380
ggaagcgcag ctgggagaag gctaatcgtc gtcaatcgag gcggccttgg agtggacagg   19440
accgaga                                                              19447

<210> 8876
<211> 2088
<212> DNA
<213> Homo sapiens

<400> 8876
gtgtccttct aatgccatct ctgtagaaaa tgtgccctgt aaggtcagtt tcctggaagc     60
tcttctgtgt gttgtccctt ctccagcagt gggtcgattg tcagggagcc caggatggaa    120
gctaagtgca ctggtcattg gttgttcttt cagtgccctt cagacagccc ttgccctggt    180
ggtcttgtgc ctccctgtct gtttggtgcc tcttttataa attagtgatg acttcaggaa    240
atggtcctgg atttcaaata gctattcctg gagacattct aattctgtgg tttaaacctt    300
aaaacaaaca aaccaaagta attccctgga tattggtggc tactggtgtg aagagcatgg    360
tgcggcgcct gttacttgga tgagctttga tcaaagaatg gcatcaaatg ataacagaca    420
ttggaggtat aagtgattac aaggagaatc atagatctaa ataaaaatgg aatggtggtt    480
aatactttaa ttgatcgaga tgatacagca atatttttat tcatatatca gtacaatatt    540
taactttttaa aggaagtgat attcatctta gcagaggtct cttagcacca tatttgcaac    600
attggatgtt atccattgag ccttgttttg gggaggaaaa aagacaccaa ctttcttgag    660
taaattgttc tctgaaggtg ttttacacag gaatacaaat ttgcctgaac tcaaaagggt    720
cttgtttaca gtactttaat cttgtttttc acttcataag ccctctgtaa actgaaatac    780
agagctacag gcaaacctca tttttattgca cttagcttta ttgctctttg aagatactct    840
gttttttttt tttattcaaa ttacagattt gtggtaaccc tgcctcaaac aagtctgttg    900
gtgccatgtt tccaataaca ggtgctcact ttttgtctct gtgtcacatt ttagtcatta    960
tctcaatatt tcagactttt tcattactgt tatatctgtt atggtgacct gtggtcccag   1020
atctttgatg ttactattgt cattgttttg gggccccata aaccatgccc atataacgtg   1080
gcaaacctta tcaataagtt ttgtgtgttc cgattgctcc atgaaaccag ctgttccccc   1140
```

6577

```
tctctctccc tcttctcggg cctccctatt gcctgagaca cacaatattg agattatgcc    1200
agttaataac cctgcaatgc ctctaaatgt tcaaatgaaa ggaagaatct catgtctctc    1260
actttaaata aaattctaga aaggattaaa cttggtgaga aaggcatgtt gaaagccaga    1320
atacgctgaa ggctagacct cttgcaccaa acagccaagt tgtgaatgca atgaaaagtt    1380
cttgaaggaa attaaaagtg ctacttcata gaacacatga ataataagga aaacacctta    1440
tttctgatat agagaaagtt ttaatggtct ggatagaaga tcaaatcagc cacaacgttt    1500
ccttaagccg aagccagagc aaggctctaa ctctcttcaa ttctctgaaa gctgagacag    1560
gtgagggagc tgcagccaaa aagctggaag ctagccgagg gtggtttatg aggtttaaga    1620
aaagaagcta tctccgtaac ataaaagtac tagacgaagc agcaagtgct gatgtagaag    1680
ctgcagtgag ttatccagaa gatctagctg ggataattga taaagctagc tacactaaac    1740
aacacatttt cactgtaaac caaatagcca tctattggaa aaagatgctg tctaggactt    1800
tcttagctag agagtacgag gcatcgcctt ttcttaaagc ttgaaaggac aagctgaccc    1860
ttggtaggag ctaatgcagc tagtgacact aaattgaagt tagtgctcat tttcccttct    1920
caaaatccta cggcccttca gaattatcct taaatctact ctgcctgtgc tctaggaatg    1980
gaactacaaa ggctagataa cagcacatct gctgacagca tgatttactg actattttaa    2040
gcccactatt aagacctact gcttagaggc aaaaaaaaaa aaaaaag                   2088


<210> 8877
<211> 463
<212> DNA
<213> Homo sapiens

<400> 8877
ctgatgtttt tactcaccat cttgccaccc aacagcattc acttgggagc ttattagaat     60
tgcagaatcc tcagccccac cctgacctac tacattagaa tctgcatttt accaagaggt    120
ccaagtggtt tacattcacg tggaagtttg caaagcactg gtctacaacg gtggtccatg    180
gagcaaagct tgagtagtaa agctgtagca cagtagttct caaacttgat tgctcattag    240
aatcatacag ggagctctgt aagcttctca tctccagcct tcaccgtcag agattctatt    300
tgttagagtg gcacctggac atggatagct ttaaaagctt ccccggtgat tctgatgcgc    360
agcctaggtt ctcaacacct tgctactccc aggtgtgggc ctcagactaa cagacatcac    420
ctggacctgg ttagaaatgt gtctctcaga taccaccctg gac                       463


<210> 8878
<211> 3943
<212> DNA
<213> Homo sapiens

<400> 8878
tgacaattca aattcgaata tcacttgaaa agctcttaag aggaaataat aaattcttta     60
ccttgttgaa cttcaaaaaa ttaacatttg gggctcaaga gactctccaa attggctgtg    120
tgaccttgga taagtaactt aatctcaaaa tctctcatat caaaactggg ggattagttt    180
aagtgatttg gaaaatccca ttcagtttta aaatcctgtg gttctctaat tttttttctt    240
agctttgttt tccggaaagt tcgaagcttg ctagggggaa atattcgtct cctgttgtgt    300
ggtggcgctc cactttctgc aaccacgcag cgattcatga acatctgttt ctgctgtcct    360
gttggtcagg gatacgggct cactgaatct gctggggctg gaacaatttc cgaaggtagt    420
gttctccatg gtcagaggct ggagtgtgat gccagacgtt tttttggggt atgggatatt    480
ttctgcaaat atataggaga agagtagtaa ggtgtttgtg aggcagaata atggtggatt    540
ccaagtacta tgatcattga tatcaatttt tagaatgtat tagatgcatc tggagtcaat    600
aatttatctg gagaagtttt tatatcaaac tgataggtaa tattaaaaac cacttagcat    660
tttggaagag aaactttagt aacaaacact gactgttttg tgtacattta ttttctcaca    720
tcagtgatta aatttctttt tatgtagaaa acttaaggtg cttttgttta tttgtgtagg    780
tgagtatatt aaggctcagg ttcagaaatg tttatgagga tttctgtaag tgttagagaa    840
ggaactaagt tctggtctag ggaatattat taccagagtt tatcatgtgg ttgtgtttga    900
ggaggagatc taccaactaa tcagcagttc tgagatgaat cgcatagggc ctccatgcgtc   960
ccttttatgg gagaaagtta ttttgctttc cggtacagga tacagctgtg cttctcctac   1020
tttgtatttg ccatatacgg atagatacaa aacctcatga ctgatttttc cctatttatt   1080
ttgagtggct ctgtatacca ttttcatgta ttacttcatt tttctgtttt tcagttatgt   1140
tctctgtttt cgtatatttt tggaagctag ttctaagtca tgttttgtag gaaataagca   1200
atcttaaata catgcatagg ggatttcttt cttctgagga tccttaattt cttctatttt   1260
```

```
taagattcaa attgaatgat taatcagtaa cagtttatgt tttaaataaa agtctttaaa      1320
atgttaaata tcagcctttc atttctgata tttggtcttt gaagaggaaa cataatgcaa      1380
tagtaattca taatagtgga gggttctttc ctcacatcct tgaaagccac cagtcttatt      1440
cttcagcctg gctcttgagc tattgctgta ttaattttaa ataggatgtg atagcataag      1500
ctgatggaag cctgcagaga tctcactttg aaatggtgat acattacatg ggaaaagatt      1560
agagaggtgt tttatactgc acatcggtga ggcctaataa gaaagtagaa tagacgtaaa      1620
ccattgtttt catcatcctt taagacaggg atttcaaact caagaaccag gcagctacct      1680
atttaaatga gtcaagtggg ccctaatgta agacaatgtg atgggtaagg attgattctg      1740
agggaacagg agcaggcatg ccctctctaa cagaggccgt cagttctgct gtacctgaaa      1800
tgtgggccca ttgttgctgg cgattccaca cttacatcta aaatttcctg attttttaag      1860
aatgacaata actaatttaa aaaaaaaaa aaaacctcaa tgtaggccaa aaaatacgac      1920
tctacaggcc tcacggcctg tgcttcacca atatgtgact tctgctttta aggaatagct      1980
ggggatacct cagccttagg ataaataatc attttttggta atttagaaaa atgaagcagt      2040
gtattagcta ctgttctcaa atatcctttt tttcatttaa ttcctagtgt gggactacaa      2100
tactggcaga gtgggagcac cattagtttg ctgtgaaatc aaattaaaaa actgggagga      2160
aggtaataaa ctattttaac cacagagcat taatttttaa agtattaaac ttgaaaatta      2220
gtgcttcact ttcttgcttt agaatgtaaa cacccataag tgctcatttt tgtcctttgt      2280
gatagacgtg ttttatctcg aactatatga atgcatttat ttttcttgtt tcaaagatgt      2340
ttctgaagaa ctattattgt tttcatttta cttattacgt agatgcaagt aagaattatg      2400
gcaaaaactt gagaaatgta ctaataagtg aataatgtca ataaattagg agtgatcata      2460
actttatttt gcagaagtaa aattataaaa tttattttat gaaattgtgg atttttaaat      2520
gatttttttc tttttttttc tgagggcttc aaccttgtat tattagaagg aaattttcac      2580
tgcaattcca tagaagtctg tttattctca tgccatttaa aataatggtc acttaaaaat      2640
ttatttgatc ctgttaaaat atacaaatta tctgtgtttt attgggatgc acctttcctc      2700
tacattaagt aaagataaag attctggccg ggcgcagtgg ctcactcctg taatcccagc      2760
actttgggag gccaagacgg gcggatcatg gggtcaggag ttcgagacca gcctgaccaa      2820
catggtgaaa ccgtctctac taaaaataca aaaattagcc aggcgtggtg gtgcgtgcct      2880
gtaattccag ctactcggga ggctgaggca ggagaatcac ttgaacccgg gaggtggagg      2940
ttgcagtgag ccaagattgc gccactgcac tctagcctgg gtgacagagc gaaactctca      3000
tctccaaaat aaataaataa agaaagattc taaggcttgg atgtctttta gctatctttta    3060
gcagaattag tgggaatatt taataaattt aggcttggag tcattttgaa attatctata      3120
agaataaatc ttaatatgta gtaactcact tttttttttt tttttttttt gacacggagt      3180
tttgctcttg ttgcccaggc tggagtgcag tgtcaatggt ttcggctcac tgcaacctcc      3240
acctcctggg ttcaagtgat tctcctgcct cagcctccct aatagctggg atttcaggtg      3300
tgcgccacca tgcccgacta attttttgta ttttagtag aggtgggggtt tcaccatgtt      3360
ggccaggctg acctcaaact cctgacctca ggcgatccac cctccttggc ctcccaaagt      3420
gttgtgatta cagacatgag ccactggccc agcagtaact cattcttata tagggatttg      3480
ttctattaat tgcatgactt aatacttctg tcagtttatc aatatgatat ttaagatgtt      3540
gcagaatctt tcaaataatt tgtctcttgt atttataatt ttatacaaca aatggaagat      3600
gttgggtttt agagtttaat ttttttctca gaatagaagt ttgaaaacat aaatacttat      3660
ggtttagcaa ctgagatttt gtgcctactg ttaaattgat aaactttgtt cattcatagt      3720
gtctgccttt tttcctttgg gaagttctaa ttggattaaa ataagatgac tgtttagaaa      3780
ctagtagttt caaatttttca tgtgttgtat ttaactcaac tattaactca attattattt      3840
tattaggtgg atactttaat actgataagc cacaccccag gggtgaaatt cttattgggg      3900
gccaaagtgt gacaatgggg tactacaaaa atgaagcaaa aac                       3943


<210> 8879
<211> 1239
<212> DNA
<213> Homo sapiens

<400> 8879
atttgagata tttcctttg attcagacgt aacactgtgc tttcaagctt aacatcctat        60
tattttccta tatatagcta gtgtttatga aagtttctct actccttatt tttaaatcca       120
tataaataaa gcatttattg gatttatact gaggttgaat taaagaagtg taagtttatt       180
tttagcatcg tgagaagtgt ctcacttaag gtagtttta atctggttgt gtttgcaatg        240
aaacaatatt agacagtttt ataattgatt tctttctttt tcctaccatt tcatcagcaa       300
gtcccttcag ctctttcaaa ataaaccctg aatctgatca ttgtggtctg aatcactatt       360
atattttgcc agaactgcta caatagcctc caaattcttt tttcctcttt tcttacactc        420
aattaatgaa aattttacct tacccaagta aaatcagcta tgcccagtga tcttttaaag        480
```

```
acaaatcaga ttaacattca cctgctgaaa acccttcagt gaatttctgt ctcttctaga        540
ataaaatcta aagtctttat tgtggcctcc aatgctctat ctagtctggc ccatatctat        600
ctctaactgt atctttgatc aatctctatc ttaatcattg tgttccaggc acactaacca        660
tctcgctatt ccttgaatag catatttctg tctggaatgg tcaactaaca gcaaagagga        720
cagtgtggtt ggataggaat gagagaggga ggaagagggt gatgaggtta cagaggtaat        780
taggggaaag attatatggt cttataggcc gtagtagtac ttttagattt ttctctgaaa        840
aaatagagag ccattttagg gttttgaaca aaggactgat atcttccact tgccatttaa        900
aaggatcatt ctggctgttg cattaagaat gactatagag gctgggagtg gtggctcaca        960
cctgtaatcc cagcactttg ggaggccaag gcgggcagat catttgaggc caggagttcg       1020
agaccagcct ggccaatatg gtaaaaccct gtttctacta aaaatacaaa aattagctgg       1080
gtgtggtggc gcccacctgt aatcccagct actccagagg ctaaggtggg agaattgctt       1140
gaaccaggga ggtggaggtt gcagtgaact gagatcatgc cactgtgctc tagcctgggt       1200
gacagagtga gactccatct cggggaaaa aaaaaagaa                                1239


<210> 8880
<211> 1239
<212> DNA
<213> Homo sapiens

<400> 8880
atttgagata tttccttttg attcagacgt aacactgtgc tttcaagctt aacatcctat         60
tattttccta tatatagcta gtgtttatga aagtttctct actccttatt tttaaatcca        120
tataaataaa gcatttattg gatttatact gaggttgaat taaagaagtg taagtttatt        180
tttagcatcg tgagaagtgt ctcacttaag gtagttttta atctggttgt gtttgcaatg        240
aaacaatatt agacagtttt ataattgatt tctttctttt tcctaccatt tcatcagcaa        300
gtcccttcag ctctttcaaa ataaaccctg aatctgatca ttgtggtctg aatcactatt        360
atattttgcc agaactgcta caatagcctc caaattcttt tttcctcttt tcttacactc        420
aattaatgaa aattttacct tacccaagta aaatcagcta tgcccagtga tcttttaaag        480
acaaatcaga ttaacattca cctgctgaaa acccttcagt gaatttctgt ctcttctaga        540
ataaaatcta aagtctttat tgtggcctcc aatgctctat ctagtctggc ccatatctat        600
ctctaactgt atctttgatc aatctctatc ttaatcattg tgttccaggc acactaacca        660
tctcgctatt ccttgaatag catatttctg tctggaatgg tcaactaaca gcaaagagga        720
cagtgtggtt ggataggaat gagagaggga ggaagagggt gatgaggtta cagaggtaat        780
taggggaaag attatatggt cttataggcc gtagtagtac ttttagattt ttctctgaaa        840
aaatagagag ccattttagg gttttgaaca aaggactgat atcttccact tgccatttaa        900
aaggatcatt ctggctgttg cattaagaat gactatagag gctgggagtg gtggctcaca        960
cctgtaatcc cagcactttg ggaggccaag gcgggcagat catttgaggc caggagttcg       1020
agaccagcct ggccaatatg gtaaaaccct gtttctacta aaaatacaaa aattagctgg       1080
gtgtggtggc gcccacctgt aatcccagct actccagagg ctaaggtggg agaattgctt       1140
gaaccaggga ggtggaggtt gcagtgaact gagatcatgc cactgtgctc tagcctgggt       1200
gacagagtga gactccatct cggggaaaa aaaaaagaa                                1239


<210> 8881
<211> 1674
<212> DNA
<213> Homo sapiens

<400> 8881
gaaggatgga aataggaccc ttgagccgat tactccgtga tggctcagac tgcatgcaaa         60
gactaggatg gggctcttgc tctggctcag tgttgggcat acttcccctc agaaggcccc        120
cgccaaagag cttagatttt ggcttgggaa aaacattacc cctcttcagt aaccctgaag        180
ctctgtattt ggtatttggg attcaggtag gtcagctgct catgttgcct ggcccaagtg        240
tgtaagaaca aacagtaatg ccagtcattt tcccactaag atgttccagt gggaaggggg        300
gctggtatga aaaagagaat ttttttttct ctgtgtaatg ataactttgt tcacgtagta        360
agaattcagt tcttactatt ggtgtgaata gggggtaaat attattttta tttaaaagca        420
aaattaaata ctttctgaac ctcatccatg tttgcaagta gatgtctact gtggttgcct        480
ttttcctca agagaatatt ttaataaact tgtaagtaat tttgttacat ttttctgtct        540
gcctgtgtac tatgtattaa aactcacatg ggggctttca tgataaaaag ataaactgtt        600
aagcagttgg aaattttcag tgttcttcca gtggacacct gccttggggc aggagcttct        660
```

```
ttgtagtcat tattgataga atggggtcac acacattgtg ctcctgcatt aagggcagct    720
ccaaggtttg gcatgagact atgcatgtgt gtggacacgg aggtttctca gtgagaaaga    780
gtcctaagac agtgaagtgg aacgaggcct taaaaatcat ctagtcagct gacttccagt    840
ttcaggttct caggctcctt ttggtatttt aggaagccca cattggacta gagagagact    900
tcagaccaag atatcatgtt tatgttcttt tagctagaat tgtgttaagg caatgactat    960
ctcctacagc ttagaagttc tgaagtacat ggccaggagc ggtggctcac acctgcaatc   1020
ccagcacttt gggaggccga ggcgggtgga tcacccgagc tcaggagttt gagaccagcc   1080
tgggcaagat ggtgaaaccc tgtctctact aaaactgtga aaaacacatt agccgagcat   1140
ggtgatgcat gcctgtaatc ccagctactt gagaggctgg ggcacaagaa tcacttgagc   1200
ctgggaggca gaggttacag tgagccaaga tggtgccagt ggactccagc ctaggcaaca   1260
gagcaagact ctgtctcaaa aaaaaaaaa aaaaaagttc tgaagtacag ttatatatgt   1320
atttgattaa tacaaaagta gagaagttaa tcactcctta aaaaatgcag tttgggaggc   1380
caggcacaat ggcttatgcc tgtaatccca gtactttgga aggccgagga aaggcggatc   1440
acttgagtcc aggagtagga gaccagcctg agcaacatgg tgaaacccca tctctacaaa   1500
aaatacaaaa attagctggg tctggtgacg tgtgcctgtg gtcccagcta cttgggagac   1560
tgaggtagga ggttcacgtg ggcccaggag attgagactt cagtgagcca tgattacacc   1620
actgcacttc agcctgggca gcagagtaag accctgtctc aaaaaaaaaa aaaa         1674
```

<210> 8882
<211> 1674
<212> DNA
<213> Homo sapiens

<400> 8882
```
gaaggatgga aataggaccc ttgagccgat tactccgtga tggctcagac tgcatgcaaa     60
gactaggatg gggctcttgc tctggctcag tgttgggcat acttcccctc agaaggcccc    120
cgccaaagag cttagatttt ggcttgggaa aaacattacc cctcttcagt aaccctgaag    180
ctctgtattt ggtatttggg attcaggtag gtcagctgct catgttgcct ggcccaagtg    240
tgtaagaaca aacagtaatg ccagtcattt tcccactaag atgttccagt gggaagggggg    300
gctggtatga aaaagagaat ttttttttct ctgtgtaatg ataactttgt tcacgtagta    360
agaattcagt cttactatt ggtgtgaata ggggtaaat attatttta tttaaaagca    420
aaattaaata ctttctgaac ctcatccatg tttgcaagta gatgtctact gtggttgcct    480
ttttcctca agagaatatt ttaataaact tgtaagtaat tttgttacat ttttctgtct    540
gcctgtgtac tatgtattaa aactcacatg ggggctttca tgataaaaag ataaactgtt    600
aagcagttgg aaattttcag tgttcttcca gtggacacct gccttggggc aggagcttct    660
ttgtagtcat tattgataga atggggtcac acacattgtg ctcctgcatt aagggcagct    720
ccaaggtttg gcatgagact atgcatgtgt gtggacacgg aggtttctca gtgagaaaga    780
gtcctaagac agtgaagtgg aacgaggcct taaaaatcat ctagtcagct gacttccagt    840
ttcaggttct caggctcctt ttggtatttt aggaagccca cattggacta gagagagact    900
tcagaccaag atatcatgtt tatgttcttt tagctagaat tgtgttaagg caatgactat    960
ctcctacagc ttagaagttc tgaagtacat ggccaggagc ggtggctcac acctgcaatc   1020
ccagcacttt gggaggccga ggcgggtgga tcacccgagc tcaggagttt gagaccagcc   1080
tgggcaagat ggtgaaaccc tgtctctact aaaactgtga aaaacacatt agccgagcat   1140
ggtgatgcat gcctgtaatc ccagctactt gagaggctgg ggcacaagaa tcacttgagc   1200
ctgggaggca gaggttacag tgagccaaga tggtgccagt ggactccagc ctaggcaaca   1260
gagcaagact ctgtctcaaa aaaaaaaaa aaaaaagttc tgaagtacag ttatatatgt   1320
atttgattaa tacaaaagta gagaagttaa tcactcctta aaaaatgcag tttgggaggc   1380
caggcacaat ggcttatgcc tgtaatccca gtactttgga aggccgagga aaggcggatc   1440
acttgagtcc aggagtagga gaccagcctg agcaacatgg tgaaacccca tctctacaaa   1500
aaatacaaaa attagctggg tctggtgacg tgtgcctgtg gtcccagcta cttgggagac   1560
tgaggtagga ggttcacgtg ggcccaggag attgagactt cagtgagcca tgattacacc   1620
actgcacttc agcctgggca gcagagtaag accctgtctc aaaaaaaaaa aaaa         1674
```

<210> 8883
<211> 153
<212> DNA
<213> Homo sapiens

<400> 8883

```
tataaattga attatgtaat atgtgatctt tgtgattggc ttctctcagt tagcataagg      60
ttttcaatgt tcatacatgc tatagcctgt gttagtactt tgtttctttt tcttgccaaa     120
taatatccat tgtaggggta tgtaacattt tgt                                  153


<210> 8884
<211> 153
<212> DNA
<213> Homo sapiens

<400> 8884
tataaattga attatgtaat atgtgatctt tgtgattggc ttctctcagt tagcataagg      60
ttttcaaagt tcatccatgt tatagcctgt gttagtactt tgtttctttt tcttgccaaa     120
taatatccat tgtaggggta tgtaacattt tgt                                  153


<210> 8885
<211> 230
<212> DNA
<213> Homo sapiens

<400> 8885
cgggcggatc atgaggtcag gagatcgaga ccatcctggc taacacagtg aaaccccgtc      60
tctactaaaa aatacaaaaa attagctggg cgtggtggca ggcgcctgta gtcccagcta     120
ctcgggaggc tgaggcagga gaatagtgtg aacccaggag gcggagcttg cagtgagcag     180
agatcgtgcc actacactcc agcctgggtg acagagtgag agactctgtc                230


<210> 8886
<211> 7029
<212> DNA
<213> Homo sapiens

<400> 8886
attggctaca aacccactgg tataagcagc agtgtgcctt ctctctaact gtggacaagt      60
cgggcatgtg gcgggtgagg agccctgggc tgggcactgg ggcacagtga atggggcggg     120
aggggctcac atcaaaacca aaatggcacg cagcccaggt ctggttcctc catcagtgtc     180
tctttcctca gcgcttttct tccgaggtaa ctttgtgaag cttgacttgg acttgcctag     240
ccttggaggg accacaacag ggaggcctaa tagattatga actaagccct caaaagggct     300
acctgcccag gaggaggaag tgggcatctc cttccacagt ccctgcctgg cggggctgtt     360
cagggagact gagttccgag ctcaggatgt ctggcaggct ggctgtgact tccagccacc     420
atcaccagga caccggtgtg ggctgcatgc ctcagtgggc caggagaggc acggcctctg     480
agttgggtag aggcttccca caaaggcctg gaacctgat cctggccgta aatctgaaag      540
taccacagcc ctcaggagaa ccaagagata gggaggcagg ctggggaaat gtcatcaatg     600
tgcacccagg cgtggtggag ctggtcagcc ccagctggag tgggacccca tcaagatgga     660
gcctttcctg gcacctccgg gaggccgttt tgcgtttccg cccttcatgc atctgaaaca     720
ccaagggcca tgttccttct ggtgcttgtc cttttgagct tggtgtttca gccgtgtctg     780
ttttgtagac tttgattttg tcttaaatga gaaagaaagc tggtgaaggt tatttcaaag     840
ttaaatagct agtctgaggg gcttatcact gaagccagtt gtgcttatgt ggggtgggag     900
tgtcactgcc tacttgaaag tatgcacttg tgtggaacag attcagggtg gcccctagca     960
cttggggctg cgggagcttc tgcacacttt ccctttaacg gtaaagagac aagcttggag    1020
tgtttaagtg gttcgttcag gagcacagtg atagcggtga caaaggagat ttgaacccac    1080
gtctgcgtgg ctccaaagtt cactctttca tcactccctg ctgcgtcctt cttgaggctt    1140
tagcattttt agtgtgtttt gtgcccccag acctcagagt tgacatttag cagtgataaa    1200
ctgctgtaaa tccaaagaac gtttagtgtc tcttgtggtg aggtcctgaa atgattgttg    1260
tattagtcaa acagaatgat catggagcat gtatggagat gtcagatgca atccctgtat    1320
tgtaaggcaa tgacatttaa tgaaggataa gatgaattca cagataacta gaactcaggg    1380
ccaaacgcac acagcctgta gcaacagtgt catgctgaga tttaaaggaa gaagaggtgc    1440
cgtggcagaa ctccacgtga ccgtcccctc cctgcacgca gccaggatga gaggagcaga    1500
gctgagcgcc acctccctgt cggtgccacg gctgaggtga ggagctcttg ccggatggtg    1560
gggtggggggc agcagggcag attgaagtca gggattctct tatacctgag tttggaatgc   1620
```

6582

```
ctcctattca aacaaagcaa aatatctaac agatggttgg atatgagtct cagggaggaa   1680
ttcaatttga aaagcacaga attaacatgt attgcttata tgaagaatct cagctagaat   1740
aacaaggtcg gatgggagga atcaggactg atttgaagca cgatttacta aatcattctt   1800
tccttttcct ccttagcaga tcataccgcc agctgcttaa cacgtaatag tttaataaat   1860
tgtttcttct tacctctcag tgagggtaag cacatgcagg gagatgggtg agtcttttaa   1920
atggatagtg tcatctctga tgatcagcct tgacagggag agatcctagt aaagctgcaa   1980
attcaggcac tcagttccca gccctccagt tatcaagggg gtgggaacgc tggtgggctg   2040
gaaaatgtgg aacagacctg ctcctcttct tttcctgcca attaccgtat tcatagaagg   2100
ttgtgtctgt ggatcacacc tgtgtgtgtg ctgatggcgg atgcttgtgt agcatagtga   2160
cttgggacaa aacagcatgg tagatgaggc tggagacggg tgggctaagt aaacaggcat   2220
tgcattgcac attttgtggg caaagaagtt gaagcatcgc atgattttaa caaattactt   2280
gccagatgat ttcaacacac tgcaaaattt agaatcaata atgccaaatt ggccacatga   2340
tttatataaa accaagtgct atggtttaa tattatcttt agaggagaaa ccattttgat   2400
ctgtgtccaa ataactcttt tttttttttt tttttttgag acagagtctc actctgtcgc   2460
ttgagctgga gtgcagtggt gctatctcgg ctcactgtaa cctccgcctc ctgggttcaa   2520
gcgattctcc tgcctcaacc tcctgagtag ctgggattac aggcacccgc caccacgccc   2580
agctaatttt ttgtattttt agtagagacg gggtttcacc atgttggcca agctggtctc   2640
gaactcctga cctcatgatt tgcctgcctc agcctacaaa agtgctggga ttacaggcgt   2700
gagccaccgt gcccagcccc caaataactc ttgaactgga aaataactct ttagctatat   2760
actggcagaa tatttgaaca actctagcaa gaaatgtcag tttagggatg cctcctctaa   2820
atgggggctt agaatataac attttgcagg aagtcctttc tgatacatag ctgactagat   2880
gaaggaccag attaacaagt tcatgagttg taaatataaa agttgtgtac cacgataaaa   2940
aagaaaaaga agtatggctg cactgttgat ggctggtcaa acagccccca agaatcctgg   3000
ggtgactcca atactgccac cttttctctg tgggtgcagt tgcctgcgga tgtgtgtgca   3060
catctgtgcc tcggtatgca cactcgagat gcccgctctc atagacggtg cagagcgtca   3120
ctgcattcct atctgattaa tgtgacctta gtgttgtaga tacactgtgt cactttcatc   3180
ctccctcctc cccacaaaag atgccacgag aactcgtgaa ctgtgataag caatgaacag   3240
aataactgtt gaagaagcac ctcatgaacc tccccagaga aacgggatgg aggagcaccc   3300
agggtgctct tgctctcttg cctgcgctgc catttccttc cagcctgggt ttctagctct   3360
ttggggagat tccccgtttt gtggaatgct ttctgtgttt cctacttctg gatgcctaag   3420
gagtggccag tcatactcct ggctgaccac tgccaggcac cgtggttttc ctcactgaac   3480
tcaaggagtc accctccgtg gggaggccac actcacagct ccaggcctgc catttagccc   3540
ttgggggcttg gctgtaaagt tgcccaagag gattacagga gctgccagcc aagtttaatt   3600
tggccacctt agagaactgc agcaaggccc tatcagcttc ccattagaca aacaactgca   3660
tttaaattaa ataaagtttg cacctctagg gagtgctgac ctgaaaataa gaaccttctg   3720
tctgtgatta tagagtacac ttgcttttat taattgctga ttcttagttt acaaaaaaaa   3780
aaattagaaa agcattacca tttactttcc aaggggcaag agattctcta caataccctt   3840
cccccaaccc tctcctcaaa tttccaaatc ctaaatactt tgaagaaatt tgtgtgactg   3900
tttaaaattg agtatttcct tctaactatt gtcttttgaa aagggatggt tcaccaggcc   3960
agtgatactc tatggactgc attttgggac ctctacccca gcaaggatac aggttcctgg   4020
ggtcttgaag atgggaaaag ttgtctcaga atttacccaa atgtcgttct caccataaaa   4080
gatatacttg tagaaatgag aagcttcagt ataactcaaa acactggacg cagcaataac   4140
tataaacatt ttaatttcaa aaacaaaggt gtgtgcgatg ttgtgtgcac agtaagggtt   4200
gcggggcttg gagaacaagc acgcgtccct gtgaagcccg cagggtgctg gcggcccacc   4260
aatcgcctgg actacagtga ggagcattgt gtgactccgc ggtggatttc catgcaccga   4320
atggactcag tttctaaact cacatcctaa cgtatcctgg cttttcacag aatactggag   4380
acatgactgc atgcatgatc acggttcttg ttgtgaagct gccaccatgt tacgcttaac   4440
agctgcataa atattataaa gaaatagggt tttcttgaca cttagattta accttaatgc   4500
atctgcccag ctgatggtat cagacgtgct gctgttcatt tctttttcat ggtaacagta   4560
atgtataaag tgccgatgat gtaacatgca gttgtcttat tttcatcagg gcatttgttt   4620
catggctctg ttgagttgtt ttaagttagt gaatggcttt tgagatttca gattctggaa   4680
catgtgtggt gctgtccgcg gtgtgccgct ctgggcagcg ctgtgcctgg ccagggaggt   4740
gtggtgtggc ttctttgttg cttttttttg tttccccatc atgtgaggtt tttttgttgt   4800
tgttgtttga tttttttttt tttttttttt ttttttcaa aaacctgaga tcagttctgt   4860
gttctggaac agctctcctt ttccacagga ggagtccctc atggatcgcg gtattggttg   4920
gttgtggtga tttggggagc acgagggaga gcaatgcagg tgggaggtgt gggggagcca   4980
gcctccccgc ccggccgcac gcccgtcact gctcgtctga cacactttgc tgcgaggccg   5040
tgtcgtccag gcccatgtcc tcctggcttg ctctcctgca gacaacccg agagtgtccg   5100
ccacagcctc agccagacat cggtcatgaa gctgcccctg ctcggtggca tcaggggct   5160
cacatggctc ggagaggtgc ttccaaagag aagagagaaa cagtgaacag ctcagcaaac   5220
gttcactacc cacttctaac tggcatcacc cccatccgtg ctgtgggagc taaaggctag   5280
```

6583

```
cgctgccata tccttgaggt caggttctaa agtcaggtca aatgatagag ggccagcaca   5340
gtggcctctg aggacaggac gggcaactga agcagcatct gagacacagg ggctctgcac   5400
gtgggccttt ctggatgact gcgctggaaa gagcggccct ggggggaagg ggcatttgtg   5460
cgcctggctt tctagctgta gtcagtgtca cttcatgcac acttagcccc tgtcatgaat   5520
gctgagttct agcaggcttg accccagtag aacacagagg ccattgtatt ctgggggcat   5580
gtggtcccta cgacaattgt ccattttgga gagcaggaag gagaatttga cagaatccca   5640
gaactacacc catagattgt gactttaaca cagattgggg catggagaag ggtgatactt   5700
tgtacatttt tattgaggaa ataaagaaaa gggaggggaa atgtattctt ttagttatct   5760
aactaaggtc aaactcctga agtaaccacc tctttcctct tggccaggac agcctggggg   5820
ttccaggaaa gcccataaat ctccccttcc atgaaaggtg gcacccatgg ctgcaatcct   5880
gtggctcctt gtagggcggc cggcccagcc ttggcttccc ctggcaggaa ggtacttccc   5940
tggagagctg tttcccatga aggagaggga gggtgacact agaaatgttc aggtgcagcc   6000
ccccgtctcc acctgcaaat aacctcaccc agaaccagag gccaagccac tgcaactctg   6060
gtgcttgatg gaaagcatga gccatggtaa ggaaaacctg aacactcaaa aggagtgggg   6120
gaactctcca aacctgaccc atttttgcct tgacaccatc gattttccct gtctaccagg   6180
tcacatagga gcactgctgg gtatttattt acttttttct cactgaagaa gctcaagtat   6240
tcatttcatc tcagctggtt tgggattctg gacaagtaac agcttatttg ggtgaagtcc   6300
ttagaactct ccttgtctag tatttaaata cctaaaagca gtgggccatc tcagcagctt   6360
taaagtcaaa tcgattggct gagaagcagt gaagctctaa ctccagcatt gacaggtgtc   6420
ctttcctctc cctcaggcca gaatcatgtg agaagagtcc tgctgtgtga atgggtggag   6480
ggcattctcc gtcatgcccc ggtgtagggc agatggccac agttctgcag aacctctgta   6540
tccggtgact cctttcagtg cctgcctggg cattatcgtt tacaggatat ctgctctgta   6600
tcttgtctgc tttcaagagc agctaagcca cttcgtgtct aatcactgtc ctttgtcact   6660
ctgggagccc catagagaag gggatggggt tctgcaggca gaagggtggg aacgcaaggc   6720
aggtgccacg ctcaggccag gagcccgtgc caccatccca gcctgtcctg gtgagccctg   6780
cccagcccct tacccgagtg gcctggctgg cagccctggc tgagggggccc atcacgatgt   6840
tgacgctgct ggatgactgg gtgtcactgg tattgccccc ctccgcagca gagagtccgg   6900
aaatgacgag cgcgctggaa aagctcctct tgccgaagag gaagctcagg gtggagctgg   6960
tggaggagcc caggctggac ctgatgagcg cctcggcccg ctcacggaca ctcaggtggc   7020
cggtggtgg                                                           7029


<210> 8887
<211> 28215
<212> DNA
<213> Homo sapiens

<400> 8887
gggcggggcc tgcgacacgc ggtgggcggg tcctgagtcg cgaccctggt ccggacctga     60
cctgaattgc gaccccaacc tggactgctc ccctgaccgc aacccctacc cccgcccacc    120
agtatggccc ggcacgtgtt cctaacgggg cccccaggta accctgaggg gatccccacc    180
tccaagaggt cgaggggggtg ggggcgcgcg ggctgcgggc gaccttgtgc tgtcggggag    240
ggtctccggc tccagggctc cggcctctga agttcccaat ttaaatggcg ggcttggtag    300
tctgaagagt ttgtactcct tcccggaaaa cgtgatttaa aagacacagg gcctaaagga    360
ttagaacaca cttgtgaggg ggtcctagac tggcttcttg atgaagggca gaaaccgcag    420
gggccagcgg cagcggtaac tcctactgta gtgttgacgt tgtggtctgc acaaatggta    480
tttcaagaga tctgcggcaa ccgcgatgtg aagtggagat gtctaatttc tgttgatagt    540
cacaggtatt tccttactgt gggtctttgc tacattgatc gtgcaaaaaa aaaatggtaa    600
attttagttg gaggacagcg aaactgaagt tgtaaccttt cttttcccatc taagttcatc    660
cccccacccc catccccatc tccatcccca cgaattccct ccacagctga ggccagaggt    720
ggagaagctt tggtacctac aggagcccctt ctcagacact cttgcttgtt cctgtcgctg    780
tcccctcctg atgtctgtca gatccctcaa ccctgtggcc tgtggagttc tcatctgaga    840
agcaggatag cgttgaggtc agatgagagg tgtaggagga ggtgctttta aaccaaggcg    900
ctacccatgt atcaagcatt actaaaaagg acaggtaggc tgcatcagat aggctaaaaa    960
aagatagatg ggctaagagt ggagaaagtg atttcttcag ctcctttgca aggcaaatct   1020
aattttgaag tttagtgtgg gttcagatat caaaggctgt aaccctggat ctagaattct   1080
ctttcacttt attttaatga ttatgtttag ttgtaagtag caaaggctac agctaatatt   1140
gcagactttg ggattttgtc aggcattgga tgggggagtt ggggagcagg gggtgaggag   1200
gaggagggtg gtttgagaaa tgcctgctat ctaaagtcac tcctaagtat tgcaaagaac   1260
tgttttctga aagttggttt gtcaatcctt tatttgaaac ttggaatgca gtttgatact   1320
cagcaggctg accccaagac aactgtgtgt tttattaatg gaggtgtcct gttaccgtga   1380
```

6584

```
ttttataccg aagaagtcag acagggaggg agaagaatag gattcgatgt cgtcacgttg  5100
tccggcaccc gggggccttt atcgagagtt gggtactgat atttcatttc tgtggtgttc  5160
tattatctaa gctcccctcc catctgtgct ttgggagctt ttcaacaaga gctaaattca  5220
ccaaaagcag atactctgtt gggtccttgg atgcccatct gctttccctt taggttgaga  5280
gtgtctccct gggcacaggg ttgagccaaa tgttgtcatc tatcctcaag aatcttaggc  5340
ctttagggat ttctcagaga aagaaaacag aatgaaacca tcacatgaaa aaagtataag  5400
aaagtgatat tttacttaaa acttgttcac caagtcataa actcctctca ctttataatt  5460
cttagtcctg tttctggtgc cacttttcaa agactgttga tgcagtagct gcttggacct  5520
taagagatag ccctgccata actgcaaggc ccattgttgg aggtgtggac actttgaaca  5580
gggtagctct gttcaaagca gagaaaacct gatcagcttt acagaccacc gcattttgtg  5640
ttggtcattt ttaaggatga tttagcatat gtggaatgcc agaggctcag tggagcagct  5700
aaaaaccaga aatcaataca ggagtttttc aacaaagaac ataatgtctt ttccttcagg  5760
ttagagcctc cacctggaaa acgtgaatgc cgagttgggc agtatgtggt cgacctgact  5820
tcttttgagc agttggcact acccgtcttg aggaatgtga gtacgtgatt tctgcttttt  5880
gaacccatct gctcttagtg tattgtggga attgctagcc atggaaacag aatgcctttt  5940
gctcttaaag gccccagttt tgcattttac aattgaaaag attgagtctt aataaggata  6000
aacaacataa tttgctatca ctctgagcta cagataaatt cctataaatt cagtacatat  6060
aaatatttta ttttggaaag gctcttgatg cccaggtacc aacattccca aagataagtc  6120
tttcctctgt cttctcacag tcatgtctta acctggtttc acagcacaac aaacatttag  6180
gaagagaaaa tgtcattata tgaacataat agccagttgt tattgaatgc ctaccaagta  6240
ctgtaagcag ttaacgtatt atattattat attacctttt ttaaaaaaga aaaaaacttt  6300
attgacatct tacggcttct ttctttctac tttgaatgcc ttttatttca tttgcttgcc  6360
taattaccct ggctagaacc tccagtccaa cattgaataa aagtggtgag agtagacatc  6420
cttatcttat tcctaatctt agaaagaaag tatttagtct ttcaccatta tgtatgatgt  6480
taactgtgtc ttatttgtat agagtttact caggcgtatt ttgttgagga tttctgcatc  6540
tttattcaca aaagatatgg tctgtagctt tcttttcttg ggatattgtt gtttagtttt  6600
ggtatcaggt taatactggt ctaatagagt taggaagtgt ttccttcttt tctaattttt  6660
ggaagagttt gtgaatgatt cgtattaatt tttctttgaa taattgatag aattcactag  6720
agaagccatg tgggctaggt ttttcttggt gagaagcttt taaattacca attaaatctc  6780
tccttatagg tctgttgatt ttgtattttt ttgttgaatc agttgtggta atttgtacct  6840
tttagtaatt tgtccatttc atctgaagta tctaagttat tggcatatag ttgttcatag  6900
attcacccat aatgcttttt attttgtaag attggtgata ttgtcacttc tttctttatt  6960
ttagttattt aaatcttctc ttttttcctt ggtcagtcta aaagtttgtc aatttagatg  7020
atcttttcaa agaaccagct tttgtttat tgattatgta gttttatgta tctatttatc  7080
agatatttat caagtactgc atatacagtc atgaacaaaa cagacatgtt tctactcttt  7140
caaaactgtt agtctagtgg gaaaggtaga cactaagtaa atttatactt gtcatggtca  7200
ttaatgctgt gaaagaaaag aacagggtgc tatgaaaggg agggacagga agaactgact  7260
ttagaccaag ggaccaggaa agagttctgg gaagatgaca tttaaacaga aaggaacagg  7320
tgagagggca ttggggagag agagttagta ttggggtatt tgtatgtgtc agggtgggga  7380
ggtctgggga gaatattcta aatggcagga acagatacat tcagacctca gagccctgga  7440
gcaggagcag gtgaagaagg taagtttggt gaggtggggg gccatgagat gcagggctct  7500
gtggaccatg ttaaggaatg tgagtgtcat ttaatctatt acagacttac tactttgatt  7560
tgtgaaaatt aaatgataca gacctgtctc aaaaaccaac tataaactat ccagagtttt  7620
ctatggcacc aagaataaag tccaaagtcc ttccagtggc ctagaaggcc ctgtagccct  7680
gtgatatctg gccttactaa cctctgacct catcttgcca ttcttcagcc acactggttc  7740
aatcagactt cccacatatg ccaggctgag gcccttggca cttgccattt tttttggtga  7800
gcacgctgtc ttcatagatc tttgcctctc tgctccttga cattcagagc tcagctgaag  7860
tatgtagtgg tggttgccca aaggctgctg aagattttag ctatagcctc tgaggatatc  7920
ctctaatctc agagggctgg tggtatctta tggtctgttt cagcagggg ttgtgcttct  7980
tggaacccac caagttctcc ttttcttcct acgctgtgtt tcctcctccc acctccttct  8040
tccccaattc cttcctcttg gaacttaccc tcagtcctg tgctggggac tctcgtggcc  8100
actgtgtttt gcgggagcag agaacatggt acttttcttt ttagctgttt tcccgtcaca  8160
tacattcctc tctacttaaa tgttcaaaag tcaagtgaaa tacttcaaat gaaattccaa  8220
gtgaagattc tggtttttagg aactgactgg gtcaatacaa agaatttttt acttaccctg  8280
ctcagacaga gtagaccaaa tcctgggagg agagtttgca caggtgttta gtgtctagat  8340
gcaagattat ataagagatc atatgctgac cagatcagag cataaatctg tttttaatt  8400
aaaaaataaa gaaatacaga cttctcccaa cattttgtat tctgattgcc aaatgcagac  8460
atgtacattc catgtagaaa aagttcctgg cagggattt gatatgattt ggctctgtgt  8520
ccccacccaa atctcatctt gaattgtaat ccccatgtgt ggagggagag acctgaaggg  8580
aggtgattgg atcatggggg tggtttcccc catgctgttc tcccgatagt gagggagttc  8640
tcatgagatc cagtggtttc aaaagtggca gtttcccctg cactctctct ctcccgccgc  8700
```

6586

```
cacgtgaaga atatccttgc ttcccttctg ccttccacca tgattgtaag tttcctgagg  8760
cctccccaac aatgcggaac tgtgagtcaa ttacacctct tttgtttata aattatccag  8820
tctcaggtag ttatagcagt gtgaaaatgg actaatatag gattctcacc cagtcagggt  8880
catggatttc ttttctggag cagaaatttt tctcccatca tacatatttt atgggaatga  8940
agaaaggaga aggaactagt gttttgtctt tatactaaag aaaaaaatga aaagaatatt  9000
aattaaaata attaggcaac aaaactgggg agtataaaca caccattttt gatactggca  9060
atgaaaacaa ccaagtaaac tggaagtgtt agaaaccctt tataaaggga cacagtatta  9120
gttcatagtg ctgggatcta tgaaaacaca aattccgata ataagaaata tccattgtgt  9180
gtaagaaatt tcaatatgta tgagtgaaag atagtttgag ggttgtatgt atgtgtgtgt  9240
gtgtgtttta atactacaaa aaaataagaa aaaagtactt ctctaattag gccaagcagg  9300
gctatgccta tttgcaggtg gggaagtaag gatgtggctg ggactggttg cagcggctca  9360
tgtctgtaac cccagctctt tgggagtctg aggtgagtgg ataacttcag gccaggagtt  9420
tgagaccagg ctggccaata tggtgaaacc cagtatctac taaaaacaaa aacaaaaatc  9480
agctgggtat ggtggcacat gcccgtgtcc caggtactca ggaggctgaa gcaggagaat  9540
cgcttgaacc caggaagcag aggtggcagt gagctaagat ggcaccattg cattccagcc  9600
tgggtgacag agcaagactc catctcaaaa aaaaaaaaaa aaaaaaaaaa agtggccggg  9660
agctgaagag cagctccagg agaggctcag gagggccagg cacaacccag gttcaccttg  9720
caaaactgct ctggttatgt ttcttgtttc ttttttctttt cctttttttt ttttgagaca  9780
gagtcttgct ctgtcagcca ggctagagtg cagtggcgcc atctcagctc actgcaactt  9840
ccacctccag ggttcaagcg attcttgtgc ctcagcctcc cgagtagctg ggattacagg  9900
tgcctgccac cgcacctggc taattttttgt attttttagta gagacggggt ttcaccatca  9960
tggtcaggct ggtctcgaac tcctgacctc gtgatccacc caccttggcc tcccaaagtg  10020
ctgggattac aggcgtgaac cactgtgcct agcctggtta cgtttcttta ggcaggaatg  10080
gagcctgagc atcgtggtcg ctcgtgagaa ataaagaaaa atagagtgtg tgtggtaagt  10140
gttctagact caggaaggtt tttggaaagc ctctagtagg gttgactgtt aattttttttc  10200
attccatgag ttaactcttt ccttatttgt caacatttgt tattttcctg agtattcaag  10260
ttctagatat tcatggttaa aaaaattata aaaaatgtaa aataaaaata aaaaacacaa  10320
tgtgaataac tcataatctt atcactaagt tagccaatgt tagcttattt tgtttctgcc  10380
ccttttgtat acctggtttta tttattcagt cattcaggat cagggaaaat gttatgtata  10440
gtttcatagg cttggtgtgt ttcccttaat atgattgagg gacatgggaa tggtctcaca  10500
acatgctaat cttcaaagct gggagatttt agtggtttca tcctatttca tggtatgagt  10560
tttcatcttt gatttaacta ttactccctc agtgttgagc attcaggttc cgtatcacca  10620
ttgtaagtaa ccttgcaaca aagcacccct tatacatgaa tcttttttctc tagccatgat  10680
tgtttccctg gggagggtct aaaaggtgaa gtctgagatg gtggggtgtg aaccttcaag  10740
gtcttgatgg tgctgcgttg actttgtgtc ccactgccag ggtgtgagtg tgcttgtctt  10800
gctgcgctgt gccagccctg agcactctac ttattttcaa cacactgctt tgttttgatt  10860
tgcatttttc agttactaat ggggttaaat gtttttcagt tgttcattaa gttttcctta  10920
attttagttg ttcatccatt gctcttccca tttattttct ttgggcttaa atagatgttt  10980
tataaagcag atagcctttt tatattattg attctgtttt tctcagttta gcacttcact  11040
ttggtgatta ttttcccttc aaggtagaga aaagtctgtc cctattccaa atttatataa  11100
aattttacct atatatttct tcttctgcat gctttttttta aacatttatg ttttcaattc  11160
atttggatta tgttgagtgt aatatgctat gagattctca gctgattttc ttccagatat  11220
ttagccagtt tactaaaact gtttgttaaa taacccattt ctaattagtt ttttatgctt  11280
aattaattat attaaaacta tgtgtgcttg tatgtatagt gtttcagagt tatctgttct  11340
cttccattga tctgtttgat ccttgcatca gtaccatagt attttaatta ccatggtaat  11400
cgtttttatt tttcttcttc aaaaaatggc cttgttcaga aactgtagta atggtggcac  11460
ttgtaatagt aaactattat tgagtgcgaa ctacgtgcca ggcatgaact cacttaatcc  11520
tcagaacact atcactctat tcctatttta cagatgagga aactgaggca tagaatggaa  11580
agttacttgc ccagggacac actaattgtg taagtggtag agctggagtg aactatagaa  11640
tcaagacttt actatccatt aaaaaaaatg tcttatatgg agtgattggg actatagtta  11700
ttttgacata aagggtgtct taattttttca gataatctta attctccaca gcccaaaaca  11760
tgtttctctt tctccatctg tttctttaaa attttttattg gtgaggttat tcataggggct  11820
ctcctatttt ctggtgctac tggaattagg attgtttttt ctgtttttcta atgatcaagg  11880
ctgataagat aatgctggcc tttttcataa tggcctttttt gatagctacc ctcaatgctt  11940
tattaaaatt tgatgcaatg taagatgtaa cattttattg attttcaaca tatctcctac  12000
tcacacaaaa tggagacaat agattataat gttttaaaga acaaaggaca tctactcaaa  12060
gccctgtttt ccaggtgaac agtgtcattt tttacaaaga tctgtgaaag gaagagtaag  12120
ctaaaatcag aacacccagg gaaaccaac atagtttgaa ccttgtattt tcctgtttttg  12180
attaaaataa gtctttaaag tatatttgtt tttgagagca ggatctactt ttggttctga  12240
aataggctct gctttggaaa atcttagaaa cttcctttga aggtgagagg actcctgtct  12300
agggaaaagt attttgtttt tgttttttta gactcgacct ggaagtgttc cttaggtcac  12360
```

                                            6587

```
tctcaggcca cttggcttta gaaagaatgt agaaaaacca agttctagtc aggatccatt   12420
cttgaaagat tgacaagctc ctcagcattg ctagaatttc tgtcattgct gttagcaaat   12480
gtggcatttg attctttgtt ctctctcagc ttctgtttct ctacctcatg tattacaagt   12540
atgtaatgca ggatcagcca gggaaattaa aagctatctg gcgcaaacag aaaatcagtt   12600
tttaaactgt cagtaaggac attcctgcag tgaatcagca taagaaaatg aggtgaaaat   12660
tcagcatgag gttgactctg cagttcattt tgcaagattt gtcatggcaa atcttcataa   12720
tttctattga gcagagactg agactttatt atttctgatt gttggcgaga ttctgtggat   12780
ttagatgcta agcaggcttt tgccctgggt tatgacacct tcatgtcttt cttcttgcag   12840
tccactctca agaaacacag aaaagttgca tgctccttaa gtcacacgtc ccttaagctg   12900
gactggggtt gagtttgtat aaactgttgc cgtttttctt tttccctctc actttgtccc   12960
atttccagca tttccttctg tctcgcctcc cgtgcgtatc agtctaaaac cacactccat   13020
taggaggaag ttcatacggg gtgagttggt tgttttcttg agtctggtac tgagaaagta   13080
catacgtgtg tgttttcttt ttttgacaat tttttaact tcatttggat aaaattttac     13140
tcttagagaa agttataagt gtaagaatag tgcaagaaca cctgtatact ctcattatcc   13200
agagtcacct atgtttatca tttgccttgt ttgcttattc tctctctctg tgtgtgtgtg   13260
tgtgtgtgtg tgtgtgtgtg tttgtgtgtg tgtataaata tataagctgg aagggggtga   13320
ctatttgaga atacgttgca atcatcaagg tactttactc ctaaatgttc agtatatttt   13380
tcctaaaaat aaggatatgc ttttacataa tcaatacagt tatcaacctc tgtaaatctt   13440
acattgaaaa aatactttaa tctatcgtta gtgttctagt ttcatcagtt gacaatattc   13500
tttgtaacat ttcttttcct ccagatgtta cacttagttg tcacatctcc atagcctccg   13560
ttaatttgga acatttccac agtcattctt tgtcttccag gacattgaca tttgtaaaga   13620
atatagttcc aatttaaaag aacgttcatc ttttggagtt tttctgatgt ttcctcatga   13680
ccaaataaag ctggaatact ccataagtca taagtgatga tgcatccttc tcgagtatct   13740
catctggagg tgtgtgatgt ttagtgatat taattttgat tacctgatca aggacttgtc   13800
ctatttctcc actgtatagt tactattttt ttctttgaca ctaatgagca gtgagtgggg   13860
agatagtgtg agaccatgca catcctcctc atcagatttc ccctagccaa ttctaatttt   13920
atctaaactt tattagatca tcttaagata aaaataattt tctcttgagg ccttaattgg   13980
caagcagatt taactactct cttttgaaat tgtttctcta gcaaggtgag cagtaattaa   14040
caaacataaa attactatac attgaagctg cactaaaaaa aatgccataa tggttaagct   14100
ttttttccact ctaagctgtg cttctctcta tttgtatccg gttacctccc cattagaaaa   14160
gccatcacca ttttattata ggaaaaacaa tcagttcttt ctcctcaggc agtttctaat   14220
gaaaacggta tcaggtatca gagatactaa acatttacca aaagcttaaa tattgatgaa   14280
aattttact aagcaagtga aatttttttt aatttggttt ttgtaaacac tggcaggaag   14340
gtggacatat caggatacct ggtcataact cttccaccgt cttctcgggg tgtgctcctg   14400
gtagaggaga gaagtccttt tactttatca tatctgccta ctgcagtggg ccattcgcta   14460
tccatacttg atgaaataat tttggtgata ttattctcag acccaaaata tgagttattt   14520
tcgagtaatt tagagcaata tgattactcc aaataaattg aggttttgtg cctatgcctc   14580
catagatccc taaacaccag agtgctattc gttcttattg gagaggaaag cagtttcttc   14640
gtggttaggt cagtttccta gatgctattc tttatttcag aatcaaagtg tggaggcgta   14700
ttgcacacag ggtgtggaag agagctttga agtcaggtga tctctggttt gactccagct   14760
ctgtcactgt gctctcagtg agttttgagt aaatccctta atgcctaatt tcctttcctc   14820
atctgtgaaa cagatgctgt tacctgctat gtgaagttgc tgggaggact gaatgtaatg   14880
cttgtaaagt gccttggccc ctggctccta ggaggtgctc agcagagcaa tagcagtgat   14940
tattttcttg agaagttaat tgaggtggtg gatggcagta ccttgagagg agcctccctt   15000
cacaatttgg tttgtgtttg ccaggagct ggggtccgga gtgggatagt aatctgtcat     15060
ggagtcccag gagcccaaat gtgcaggcca gtcccaagtg ctcagagcat gaggaggacg   15120
aggagtactg ggctctccgt ctcactggac tgactgtcag ccaggaggtg ttgtttcagt   15180
cccaagatag cttggaaaac cccatggcta ccattcaagc gctcttcagt cgggtgacca   15240
tgtgggtgag cccctgtgag tcccgagagg ccatttagga catccaggaa gagcctcaga   15300
gctagtctgt ctgtgtgccg gggtgaggat ctctggcatg tccggggggag cagcttctgc   15360
ccggagtatt cttgactggg gaagggccgg gttaccaggc gccatcgggc agtctagaca   15420
ccttgtcctg gctatgccct ggagactcac agtccatatg ccaccagaca gcaaagggat   15480
tatgagactt gaaggcttgg aataaacaca cataaaatat gaccggagcc ctgcattttt   15540
agctaataac ttcagtgggt gaggaattgt gggctggctc agagatggct gctgttagca   15600
ccatttgcct ttctgcttcc ctagaacttg ctgctgtttg gcgaagggct gcagttttgc   15660
tgcctaactt ctgagagaca ctccttattc actttcatga ctttccatac ttgctgtccc   15720
aggtgggtaa gctcaggagc tagtctgtgt gtctgatatt aaaataaaac aatccaaaca   15780
gtcctcctaa aattaacatt aataccactg gaaacattta ttatgcaaat aattcagaat   15840
aaggcaaaga ccacttggat tagcttgctc tcagtttgat attttggtta aatgaaatta   15900
ttttatattt atatgttctt tgtatttta aaagtacata taaaaataaa ggacccaaaa     15960
aaatcacact attttcaggt ctctgatata actggtacga agatatttgt tgttctaatc   16020
```

                                     6588

```
tttctggaaa gcaaactagg tgagtgtaac caaagttata aaattattcg tagcttctct 16080
tatccctggc tggtcaattt taggactcta tctaaggaaa tatcttctct cccggaacag 16140
ggaaactaaa agtgcgcttc atggctgaac atttataatc agctgaagtg gaagcctgtg 16200
aggggtgtgg ccaggaaggc tagtgtgtta cataggactg aggtgtggca ctaggaagca 16260
atgctgcctg ggttgttctc tgaggagagg ctgtgagggg aggaaagggt gctccccagt 16320
tggtgtgtac accccagatg gtgtgtacat cgtgattctg accacgtggc tgagagccac 16380
ctacagtttt tacacactcc ttactccagc agctgtaggt ggagtttctc tgggagctca 16440
ttaggactct cctcacactg ggggttgggg aggggttcct gaccatcttc aaacctgggc 16500
ccctattgtt ctaagtctgt gtctctatca atttagaaca atgtaaaggg ggtgaatgtt 16560
tgtttactta cttatttctt tgtttccctc taaagttgct tgaatttata tagaaataaa 16620
accatgttac acgttatagt ggttcttttt ttaagacctt gagtgtatga tcttgtacta 16680
tttagaaaag caggctgagt gtctacatgc ttcagagtgg ctcagcagct gacatctttc 16740
tctcaactga atatgaataa cttgcatttt taattaaaaa tcacagattt attttttgaga 16800
ttcctgaagt tcttggatta taaaattccc caattctgga cagattgagg attttatgta 16860
agctaaggtt ttaaaatgag gatttccaat tggtagaaag taatgtatac atgtgtgtcc 16920
aaattctttt gtgctgaaac ttaaataaat gttgatgagc tttcactggt gaatgttcta 16980
gaggattgca ggaaggctgg ttgttgaaga gccacacact ttctacctgt acgtgtgtat 17040
ttacacatgg ccacgtgcat tttactaccc tcatgtatat agtcaaataa atacatgtgc 17100
atgtgtacac acattctttc atatcacttc ttgtctgatt tggcaccttc caaaactcat 17160
tttgaggtgc cagaataagt tttattttgg cttttagatg acagcctcca gaggaatggc 17220
atccacaatt actcttcgtc tctgggggca gcaaaatgtc cacagcactt gggaacagtc 17280
gggtcagttg gagtggcatg cccccaggaa gacagaaacc ttcttgtaca gttgtctgtt 17340
tttattatca tagacaggtg gttgatagct gttttatttc tcccaaatat ggctttcgtt 17400
ttggaggaaa aacttggaat aagtagtgac ttacttcata gatgctctgc ccttctcccc 17460
gacccaccca gtggagggtg acattgctcc ttcagctccc cacttctcag ctctgggaca 17520
tcggtgagtt ccccaggaag gatgcggacg aggacaacca tgtacctgcc ctaagtgggg 17580
agaccaggcg tgtgtacaga taaacttaat agagaggcaa aaatgaagca tgtcagaaac 17640
acagaagtgc ggagattgtt cagacctctc ttgggtgatt acagtggact ccttattgat 17700
cttttagcta ataaaatgaa tggaaaaata tttcataagt gtacaatatg cagtaggaaa 17760
atagagtact gtttacttaa aagtctgaaa aacactgctg tactgcttcc gtgcaatcac 17820
aactggggtt tagacaccca ctatcttatc ttgtctattc caaaaggagt ctaacatttg 17880
tttctgactc cacagccagc agtctttcta gcacaacttg tgatcctccc tggattagac 17940
tctttcggct gtgggagaag attcccacct ctgtgtgtgc cttcgaaggc ctttaggatc 18000
tgggcccgca gccccgtctg tcactggctg cccctggttg ccactgatcc ctaccaccag 18060
ccacactgta ccatatgctg ctttggcttt tggaatttga acaaaatcta gcttaactca 18120
gacatgccct ctaggactat attgctgtca tcatttaagg aatcagaact gtagtgaaga 18180
atactttgta aatcagcttt acatacagtt ttcaaaataa tcatgtatac aaacatatat 18240
aaggtgtatt tgtcattcac cattcattga agtgtttatt acatgttctg ttttgtccct 18300
cccagggaag aatcaaccaa agtcctgtca gccttcccca ggaaggcttt ctatagagga 18360
catgtgtgtt agttatatgt tgctatggaa caagttatct caaaatttag cagcttaaaa 18420
caacaaacac attattgtac acagtatctg aggatcagga atccaggtac agcttagctg 18480
gggttctgag gttgcagtca agctgttggc tggggctgtg gtcatctgag gcttgcctgg 18540
gagggccctg cctctaagct tgctcatgtg gttgctggca ggttcatttc ctcttggctg 18600
ttggcatgag gcctcagtgc ctcaccacgt ggacctcacc gtcagctgcc tgagtatcct 18660
cacagcatag cacttctctt cccccagagt gagtgattcg agagagggga tccaagacag 18720
agatcaagct ttatatttat atacaaccag aaaataagtg gcacccaaat acctcaggct 18780
taaaaaaagt gagacagcaa gcatgggagc ctttgttgat aataatggcc tcttttttcc 18840
attttgagcc atatgagatt ccctacgtgc tggggggagg ataactgctc taggtagatg 18900
tttgtgtatt tcatgatctg gtccataagc gttgttggaa aaaagtgaaa attaaaagga 18960
aacaagtctt ggctaaaggg gaaaaaaag taagtacaat tgcatccttt agatctcaga 19020
ttctctttct catgacttta ttccaattta tgtccgttac ttccttgaac atcccactgg 19080
tgacaggcat agctgccagc ttccaagagt cctaatgatt cccagctcct gggactcacc 19140
cttgtgcagt cccctcccac acagtaccag cggtggtctg tgggatgctg tcacttttttg 19200
aaatccagta aaaaggtttc tgtctttttt acctcattgg tgagtgattg gggagtggga 19260
cccatgggcc ctttgattaa tgtgactctg atgtcccagt gaaagtcttt gtcattctca 19320
ggccgactgc agcagtggcc cagggcaaag agtgtgcgtc atcgatgaga ttgggaagat 19380
ggagctcttc agtcagcttt tcattcaagc tgttcgtcag acgctgtcta ccccagggac 19440
tataatcctt ggcacaatcc cagttcctaa aggaaagcca ctggctcttg tagaagaaat 19500
cagaaacaga aaggatgtga aggtgtttaa tgtgagtaca gccagtcctc cataatcagt 19560
ggaaatggag cagatgatct aaaatagcag atggctctaa aatatctctt tggttttgag 19620
ttaacatttt ttcccttcca tgctgaaatg taggtgagtc taattttcta gaaatgtata 19680
```

```
gaacttaaat tataCctCta cttgatgaaa aaacaaactc gcttatgggg gggCCtCCtg 19740
acggtcCcag ttgttCtggC tgCttttttC ttCCatctCC tCaCcagaCa ctaggaCCtc 19800
tctggCatca gaattgCCtg agctaaggtg Cttgttctaa gcttatctct tctCagattg 19860
aaaggCgCCa ggttgggata Cagaggcaaa tatttttttgt tttgttttaa agatttCCCt 19920
tttaaagctg acCCaCttgt gCttgtgggg agaagaggct gtggatgtgt tgggagaCaC 19980
agcttCCagg tgCtgaagag CagcacCgtC Cagttgaact tCCCagtagt gagggaaatg 20040
tgCtCtCtgc attgCtcaga aCagtagCga Ctagccacat CtCgCtattt atgtttaata 20100
aatttaatca tatttaaatt gaattattta tttaatcaca taaataatca aatttaaatt 20160
gaattaaaca tttggattct Cagtcacact ggccacatCt gaggtgCtct gtggtCtcgt 20220
gtggctgcta Cattcactag tgCatCtgta ggatgtgCca CtCagtgtga ggCttgCaga 20280
atggCagcat gggcatcacc tgggagtggg CCttgCCctg gtCCaaggag tcaaactctg 20340
ggggatggCc CCatgatCtg ttCtggcaag ttctCatgtg gttttaggt CCCCcgCaCt 20400
ttgagaagca CtgCtgtaga CCacatgtga gagatgaggg gCtagggCtt gttgaccagt 20460
ggCagcgtct gagCcagtcg gaagggaCtc atggCattgc tggCaCtttg tctaaattct 20520
tgCCtttCtt tCCCtgttgt CCCtctgttt tCCtCtcagt Cagatattgc ttCtCCCcaa 20580
CCCCtaCCct tagtttCttt gagtCagtgg tagCtgtgct Cttggctgag CtctgCtcac 20640
aCaCCtCact CCCcaCCCCC agtttaaaag CtcCCtggCc Ctgcaagtgc caagtgaaca 20700
agtcaggcag gCagggCCaC tCCtatcagg gggagtggag agtgagtacc Cgtgagcacc 20760
ttCCtcatga tCattttaat Cactgagtga aatgtcacct tggcCCactg gCagtatCca 20820
catgttgCca CCaaagaatc Ctggagtatc CaCatgttgc CaCCaagaat CCtggagtgt 20880
ggtggtaaac agCCattagg gttagacCag CCagacttgg aaaaatgtat gCgCttcttt 20940
attgatttat ttattcCttc atttggtcaa tagtgattga gCacctactg tatgCtaggt 21000
gtcattctaa gtCttgggat actgtggtga aCgagactga CCaaggCgct gCtttCatgg 21060
agcttacatt Ctaatggagg agCtgaatac Caaaaatgtg aacagataag ttaagcaatt 21120
tCagatactg ataaaggcaa aaataaagaa aCCaggcaat gtggtagttg ggggCaggag 21180
tagCaagggC gatCagggaa ggtctcttca aggaggtgaC atttgagagc CCtgaaaagt 21240
ctgtggggtt CttCagagtt tCatgtCgtc ttCtCttatt ttacattttt ggttgtgatt 21300
atagagtttc CatggaaatC aaggcaatga atagtgaaag atCatgaaag aaaattagtt 21360
ttgaggtcag atagcttcta ggCtggaaga CCgggaaatt gCtagtgtta gactCCaggg 21420
attggCtagt tCCaCaaact aatctaatct aaCagtCCta aggaaggatt gaaaggagct 21480
gactgtgatg CCCagaaaCa gactttgtgt Cttaggatca taCCaCattt CttCCgCtct 21540
ctgagactca aaattattct CCaggcaaga taatcattgc ttCtaatgat Ctgtaaataa 21600
aaCaattagc tttgagttaa ttaagtaaga gatagggget gaCataCCct gttttttttt 21660
gttgttgttg Ctttggggtt tgtgtggtCC ttCtgtttca gttttatttt attttttatt 21720
taacttattt ttttgagggg gagggaCaga gtCttgctct gttgCCcaga gtaatctgtg 21780
ctgggattac aggtgtgagc CaCtgtgcct ggCCtttttcc agttttataa atcaagaaCC 21840
tCattttCtt ttttCtgag aCaaggttag tctctgtggc CCatgCtgga gtgCagtggC 21900
atgctCttgg CtcactgCat CCtCtgCCtc CtaggCtgaa gCCatCCtcc aCctcagCCt 21960
CCCaaaaagc tgggaCtaca ggCatgtgCc aCCaCaCCtg aCtCatttgt gCattttttg 22020
tagagatggg gtttCacCat gttgCCcggg gttgatCtcg aattgaagag Ctgaaacaat 22080
ctgCCtgCCt CagCCtCtCa aagtgttgga attataggCa tgagCCactg tgCCtggCCa 22140
agaacCtcat tttCtttatC tgCaaactta ggtgttggat tagatatatt tttgggttct 22200
ttCCattgCt CaCatgcaat aaagtatCCg aatCCatttt tgagagtgCc CttCaCattc 22260
agtaCttagt CCatCgttta ggcacctgta aggCatgatc tCtgCCCtca agaaaaaCag 22320
aCCatggggC aatcaaaatc taggggcagg gaagggagag atCtatgtga gCagtggtag 22380
tggagaggtg tCCaaaggaa ggggttCttg agttggctct tgaaggagga aatgggaaaa 22440
agaagggaga aCattCCagg taagaaaatg agCtatgaaa aggggtcaga gtCagCgtcc 22500
CCttgCtacc agctgaaCat gCgtagtgtg aagatgagaC tgagCCCgtg atatggggga 22560
aatgtaCCac aCgaattagt aatattatct agaCttattc ttCaCaatgt tgggtgaaca 22620
gagtaCtttc Caatgaatat gCatagtgtg aagatgagaC tgagctcatg atatggggga 22680
aatataCCac aCaaattagt aatattatct tgaCttattc ttCataaCgt tgggtgaaca 22740
gagtaCtttc Caaaaacacc Cgagaactct tCCagtttta gacaagatag agtagaCaCa 22800
Cttgtgttta ttttttCCtgc taaggatgtt atttataata Caagcataag aagaCCtgaa 22860
aagtgaagag aaaaagaCag aCtggctagg aaCctaagga CCtaaggaaC aaCaCaacag 22920
aCaCaactga aaatcatttg tCatgCcaag aatCaggaat aCCtaaaCCt gagtgaggaa 22980
aggCCatcag CagatctCaa CagCaaggtg aCtCagatag tggaattata gggCaaggat 23040
ttgaaaaCag CtatCataaa aatgCttCat aaaattacag ataCaCatga aaCaaatgaa 23100
aaatagtctc agCaagaaCt ggaaagtttc agCaaaaaCc tagaagatag aagaatCaaa 23160
tgaaaatttt agaaCtataC aatagCcaat aaaaaagtca Ctgaatgggc tCatcagCag 23220
aatagagatg aCaggagaaa gaatCagtga aCttgaaggt agaaCaatag aaattacctg 23280
acaaagagca gaCttaaaag aaaaagtaat gaaCaaaatg aaCagagttt Ctgggaccctg 23340
```

6590

```
tgggactata acaaaagatg tgacattcac atcattgtag taacaggaga tgagtgtggg 23400
gttgaaaaag tgtttgaaga agtaatggct gcatttttgt catatttggc aaaagacata 23460
aacctacatt ttcagtgaac cccaagagga taaactcaaa ttcatgccaa gacataccat 23520
agtcaaactt atgaaaatta aagtcttgaa agcagtgaaa ggaaagcagc accttaccta 23580
tagggtaaaa acaatatgag tgacagcaga tttctcagga gaaaccatga aggccagaag 23640
gaggtggtac attttccaag tgttgaaaca actgtcgact cataattcta taagacattc 23700
acagatgaag gaaaactaag agaatttgtc ataatagaac tgctctaaaa gaatggccaa 23760
aggaagttct cttatcagaa aggaaatggt aaaaggagac ctggaacatc aggaaggaag 23820
aaagaacaat gggaagagta aaactctgag tgagtgtagt gggctttttct tcctctgttg 23880
acttttgaag aattatgttt gacagttgag gcaaaacgat aacattctct gatgtgttaa 23940
aaaaaatagc tgaaaaaaga aaagaaagaa cagtacctga gaaggaaaat aaaatctcac 24000
tgatacaatc tttggcacct cctattacct agtaaagcat cagtagaaga aattggtgat 24060
ggagtatttt tattcatcta tttggtaaat attgagcacg cactgtatgt caggtactgt 24120
tctatccact ggagttttag cagtgaacaa tagagaggga gaaccagaca tcattttatc 24180
agtaacccag tcctgccata actcactccc tcccactata atggcattaa tccattcatg 24240
agggctgccc ccatgaccta atcacctctt aaaggtccca cctctatttg catgggggtt 24300
aagtttccaa cacatgaaat gtgggggaca cagtcaaatc atagcaggtg acttatgggt 24360
tcttcaataa tttgttttc agaactctaa gaggttatta ccattgtatc ccattgagtt 24420
ttatcccatt gtatcccaat gagtgtgtca ttgattgatt ttgctgcctt ctagttaatg 24480
tcataacatt gaaaatgtta tcaacaactt tagttctttt tcaagctggc agcttcatag 24540
tatgactaag cctcttgttt agaccttggg gtgcacatgt tcttggcagc agtgagtgga 24600
tattatctga tcttccaggc tgcttgcatg ctacctcact gccttctaac ttgtttaata 24660
tgatcagtgt ctgtatgccc tgctcagtct cccctccccg cttcttgatt gtttaaataa 24720
gaagttgagg tggtgatatc acaaatttgt cttctcatct ggttggccta ggtacggcga 24780
gagacagtac ttgactcatc tgctgggcac agatgcagta ccagatactg ggtcctgctt 24840
atgttctgac tttaacaacc ccagacctga aaacatggat ggagcaggca ggggaagaaa 24900
tgcctcttag tatacaacta tgtgcaagaa agcaaacaa aaccacatgc atttccttga 24960
aactgtggga agggcccccca acattcctaa taagcaaggg attggatctg gaggtcacag 25020
gatgaatgag atgtggcctc tgaccccatg gtgctcacag tcttatcttc actgtgccca 25080
ggataaattc ttaccaaggg ccccctaca gccactgggc aggtgcaagg gttcaggttc 25140
actcagcttc ctttcttct cttaaggctc cagtgcagaa aaaagaatg gttgggatta 25200
ctttcttctt tctgcagtct tctttatttc cttttcctgc tcccagctcc cagttccctc 25260
ttctaattag cttctcagga aaggcttct gcaaccaaaa ttctggctgt tgaataaaaa 25320
gtagactaga atttcacata aggcaaagac tcctgaggtt ggcagatgct gtgatccttg 25380
ttcttgcatt tgggagtgtg ctttctcaa cagggaatat cataagtgaa tactgcagag 25440
agttgcacat caacatttta ttgcataatt ttcagaaata atcttaggga aatcaaaggg 25500
agtatcaaaa tattaatatt ggagtgtttg cattctgctc aatttcaaa ttaatttta 25560
atttgtaatt gatataatgt acatatttat ggggtacagt gtgatgtttc agtgcatgta 25620
tacattgtat aatgatcaaa tcagggtaat ttccatatct gtcactttaa attatcattt 25680
ttgtggtgat gacattcaaa atcttctctt ctagctatct tgaaatatac actaccttgt 25740
tatttactct gtagtcaccg tactgtgtca tagaagacca gagcaaattc tccagctgtg 25800
tatcacagtc cactctcaca gagcctggct ggaggcagaa gctactgcaa tcactgctga 25860
actcagagtg gaagaaaagg gccctgtgg tgcccacctc tgtgtcgcct cctttctacc 25920
tcaggtggat tccttgaatg caaacaacag gaatggactt tggctaactt aagtgaaaac 25980
agcatcaaaa agccttatag gctttggagc tgtcccatga agccaaagga aaagctgact 26040
gtcctcattt caagtggagc cacagccgcc caggattgac gcagccagga ccagtagaaa 26100
tgggatcaca ggattgacgc agccaggacc ggtagaaatg ggatcacggg actgacgcag 26160
ccaggaccag tagaaatggg atcacgggat tgacgcagcc aggaccagta gaaatgggat 26220
cagcttctgg cacttgctgc gtgagctcac tcctcttggg gtgcagatct cagtcactcc 26280
tcttggggta cagatctcag agaagttgcc agggcctggc ttgcccactt gttggctggg 26340
ggcaagtttc ctagaccgta cagtctccta aagacaacca gagcactctt ccaagaaggg 26400
tgagcaggtg ccaggaacca gaattgacga ggtccgctct gcatctcctc ttcagacatg 26460
tattggcacc tattgtatgc caggcccct cttcagatac aaccaccctg aacctcagaa 26520
ggcttccaca tgcactccct gctcttaccg ggaaccttgg ctcagcccct tttccatggt 26580
tcacctgtcg aaattacatc caggcttaag caccctgga agcctttcct gccctgacc 26640
ccacacatgc ccctgttcct gcctgcccc cagactcctt cattgtcctt gttcatgcct 26700
gtcctgtcct ggtctgcgag ctccatgagg tcagggtcct tacctgtggt gcttctctat 26760
gcgcatctct gtgcctggct cctgtttgcc cttccacccc atcagcgtgt gttgagtgga 26820
tggatattat atgggccaag taggaaggca ctgtgatggg agcagagatg gcccttcctt 26880
taccctgggg cactcgggat ggtgtggtag tgaaagaaaa ataaacagat catcgggtaa 26940
agctctggtg aactctttgt tgcttttgtt tgattttgta atggtgtaag tgttggagaa 27000
```

6591

```
cacactgcag tcaggaggcc tgagtaacag tctgtacgga ggcaccctca cgtctctggc 27060
tctcccactt ctccatgttt caaatgagca cttgatgttt gtggagaggc gggtagatga 27120
ctgagcatcc cagaatcctg ggcgcttcac tgctgctctg ctgggtgccc tcctgggccc 27180
cgctggctcc caggctctcc tcctcgcttc actccaacag ttgagttcct tccattcagg 27240
acaggtcgtg ctcaggggtc ctgtgtgccc atcatccgtc ccggtgtgcc tcgtcggact 27300
cacttcacag ctctccccat ggttggctga aatctgtctg ggctccaaac ccactttgac 27360
tttttgagct gtcacttggc agaaactgat gctgggactc ggtgattcct gtcctgtttc 27420
tgagtgctcc tgaagagctg ggcctcctgc ctgggtaaca aaacatacct caccctctcc 27480
cagccttcca ggcgtttctt ttagagagtt acctagcaca agattgaaga agaggaaagg 27540
agctctgaag cctgttctct cacttcttcc cacaggtcac caaggaaaac agaaaccacc 27600
ttctgccaga tatcgtgacg tgcgtgcaga gcagcaggaa gtgaagacac gtgcattcct 27660
gccttccgtg aaggagtgcc cagttcaaga ggagcctgat ggagccctgc ctgtcgaggc 27720
tgtatgccta tggggttatg gaaccttgtg ggcttttcta gagaaaactc aacagctgtt 27780
tcccataaaa tgtttaaaag atcaaattag ccttaatgct ggattgtctg tacaagatta 27840
actatccatt gtggcttatc tatgcttaaa gatttcttgt ttatttcctc ttgcagtcat 27900
gcacatgatt tgggtaaact gtgagatgag aaatggtttt cagagtatta gatggaattc 27960
acccccgttg aagtttataa atgtgttcag gggaagcggg aggaaagagt tcactgccta 28020
atcagttttg catgtcatga aaattaaatt cctctccagg tgcagcttca gcctcatgca 28080
acttaaagtg ataacagtta tttgattttt taaaaaatat tattccaaaa gaaaaccatt 28140
ttaggtcatc tcccccaact ctgtttgctt actgcttaat aaatataaaa ataaatctga 28200
tggttacaga cagga 28215
```

```
<210> 8888
<211> 951
<212> DNA
<213> Homo sapiens

<400> 8888
gtggaaatga aataaatttg tacatgtaaa gcacaagaac atggaaggtg cttactaaat 60
gttacttatc tttactttct ctgccttggt cctctcatac ccactcctga ttttaggtga 120
ttgggtggaa atggccattg aacatcatac tctactaaca aagaccattt gagagttaga 180
ttaatctctt tcccgtttca acaacaggaa gaagccccac aaatcaagta tttcccttgt 240
tctatacctt gtcattttgt tgctactccc accagccaaa gagggaggaa agtttcttgg 300
tataattaaa atgttatagg ctgggtcggg ggggctcatg cctgtcatcc cagcactttg 360
ggaggctaag acgggaggat cgcttgaggc taggagttca agaccaggct gggcaacata 420
gtgagaccca tctctacaaa aaaaaaaaga tagccaggca tgatggcatc tatctgtagt 480
cccagctact tgggaggctg aggcaggagg atcacttgag cccgagggtt tcaggctgca 540
ggaagctatg atcatgccac tacactccag cctgggcaat agagcaagac tgtctctcta 600
aaaaccaaaa attgttatag aatatagagt tgaataactt ttctggaatg agaaagctct 660
cattttagat atccattcat tcattcattc aatagtgtgc tggatgccag gaatttaatg 720
gtgaggaaaa tagacatgat ctctgccttc tgaggctcaa gatcctccct ctatttttaa 780
aaatcaggtt tattgaagta taattgatgt acagtaaaat ttactctttt tagtggaaac 840
ttctgtgggt tttggcaaat gtgtaaccaa cacaattaag atctagaaca tcctgtctct 900
cccctcccga ttttcttgtg ctcctttgga gtcaacaact ctcccccaac c 951


<210> 8889
<211> 951
<212> DNA
<213> Homo sapiens

<400> 8889
gtggaaatga aataaatttg tacatgtaaa gcacaagaac atggaaggtg cttactaaat 60
gttacttatc tttactttct ctgccttggt cctctcatac ccactcctga ttttaggtga 120
ttgggtggaa atggccattg aacatcatac tctactaaca aagaccattt gagagttaga 180
ttaatctctt tcccgtttca acaacaggaa gaagccccac aaatcaagta tttcccttgt 240
tctatacctt gtcattttgt tgctactccc accagccaaa gagggaggaa agtttcttgg 300
tataattaaa atgttatagg ctgggtcggg ggggctcatg cctgtcatcc cagcactttg 360
ggaggctaag acgggaggat cgcttgaggc taggagttca agaccaggct gggcaacata 420
gtgagaccca tctctacaaa aaaaaaaaga tagccaggca tgatggcatc tatctgtagt 480
```

```
cccagctact tgggaggctg aggcaggagg atcacttgag cccgagggtt tcaggctgca    540
ggaagctatg atcatgccac tacactccag cctgggcaat agagcaagac tgtctctcta    600
aaaaccaaaa attgttatag aatatagagt tgaataactt ttctggaatg agaaagctct    660
cattttagat atccattcat tcattcattc aatagtgtgc tggatgccag gaatttaatg    720
gtgaggaaaa tagacatgat ctctgccttc tgaggctcaa gatcctccct ctattttaa     780
aaatcaggtt tattgaagta taattgatgt acagtaaaat ttactctttt tagtggaaac    840
ttctgtgggt tttggcaaat gtgtaaccaa cacaattaag atctagaaca tcctgtctct    900
cccctcccga ttttcttgtg ctcctttgga gtcaacaact ctcccccaac c            951


<210> 8890
<211> 2919
<212> DNA
<213> Homo sapiens

<400> 8890
ttttatttaa tttatactta agtttgaata gccacacatg gctagtggct atcatactgg     60
tcaacatggg ctatctaatt ctgatgtaca gtctctgcat catcattcca ttttctaaag    120
tgggtttctc ccacagcagt tgttaaaaca aggatttgga tacaaagaga ttatttaaga    180
ggtgatccta gacagcagga gagggattga ggaggtgaga tggagaaggt gaatactagt    240
aaaagactac attgatatgc tgtaggcact tgaggtttct gtttgtttgt ttgtttgttt    300
ttttggaaac cttcgagaga cttatggaaa acactgtata attgtttcat tgaggagcac    360
ggaactgatc atgtttattc accaactctc atgccttttt ggttgaagga tgctcctagg    420
ggcattcaca cctgctctga actccttctt catctccagc ctgcctccct tatgggccat    480
ttcatgccac tgtacctaga taaagcctta gggccaagag attcaggtgc ttgaggctgg    540
gtctatcctt ctgagctgca ataacttcc agggtggatc aagggaatgt ggggtcagga    600
tagattatat tgcctctcat ttacaaccaa ccatattagc tcatattagt gttttatctg    660
gaataggagg agaagcattt gagactgtta gaaaaaaggt tctgctattt aaaaaaaaag    720
ttttgaaact gtagctctaa actacattcc tacctgtttt cctgaccacc tcaattacta    780
acttgtatcg tgttccatat tatttctagc acagcatgga ttctctaaca ttcttgcagt   ·840
ctgggccctg caaggtagct gtaaaaatgc tgccctggga ctttctcagt ggagacataa    900
gaagactcaa gcattccaga aagtgtttgt ttggttggct tttattgatg tatataaaaa    960
gattagagac agcaagagaa gaaaatcaga gagaacctat acttggttaa aaaaaaaaaa   1020
aagattttac agcagaagta gatagaagtg gtgcaaatga tgatttctcc tcttctgata   1080
tcaagctttg ttaagttcct ggaaaagcaa acgtgattat ggcaggagta aattgactga   1140
aagccaagtc aaagaggcag atcagcttct gaaggaggtc tgctcacttc agcaaagaaa   1200
gcagggcaaa gaatcctagg cttttgagct agttaggccc ccagttccta caaccatggg   1260
ctgaaataat gtggagaact cttgatattg taggcaaaat gaatgttagc agagttccat   1320
cagagataat ggctggccat gagctaaaga gagtttagcc accacaaaga agaacctgcc   1380
tgtagagata tctctaagct aaaaacctct gcaagtttcc tttcgaaatt ctaccttaaa   1440
aatttgaaat aacctcagat caaagttaac gcaagagttt ccagaagagt gaagttcata   1500
atgccacaag gaaaaaaact agaggatgac taaagtaaaa tttcatttta aaattttat    1560
tcatctagct gaggttggaa agagtaaaat ttttacatga aaatattaag tatctagaaa   1620
ctcttataaa aagaaaaatt aaaaagcaca atgatagaca aaaaggatga gaataaacaa   1680
ttcagaaaaa aaaatagaac tgatccataa aaagaaaaaa atggccaact tcacttattg   1740
cattgaagaa acacaaaata aaatataata ctgcctatta aagttgtaca tttttaaata   1800
aattaattaa aatgcccaat gtgggtacaa ttgtggaggc agtgagcact cttctacttg   1860
ttggtagaag tggaaattaa attgttacat ccttctaaaa taatttggca atctattaat   1920
atattcagat cctagaatag tttaaagcct ccagtccaat aatttattat atctatatat   1980
tgtctgttca tatatttct atttatatat atatctataa tctgtatcta catatatatc    2040
tagcctactg cctatctttg taaataaagt tttattggaa ctcagccata ctcattagtg   2100
catggtattg tctatggctg ctttccacct gcaatggtag cattcagtag tcgccctgga   2160
gaccatacaa ctaaaaacat gtaatatgca gccctttgca gaaaaagttt gctaacccct   2220
gcaccagaat ataaactctt tgacatgtaa gctcaatgag tgcaaataat ttgtctgctt   2280
tgtttgctat tgcattccca gtggctagaa cagtgcctgg cacacagtag atgctcaata   2340
aatattagtg aagtcatcag ttgctcctat taaagtatat tcatattgtt tttacattta   2400
gtgggttttt ggttttacaa ataatgttgc agtgaacaca gatctttgct tacttttgca   2460
attatatcag acacaatatt ttaaaaaaaa tagttaacaa ctttaacaac ctggaaaaat   2520
actgttgata tatcaaattt ttaaaataga ctaaaatttt atagatgact ctaaattttg   2580
ttttttaaaag tgtgtgtgca tgtgtgtgcg tgtttgtgtt aactataaat aatttgaagg   2640
ctaggaggtg ggtggggtga ttttgatttc ctttcctttc ttttctttttt gtttttttgtt  2700
```

6593

```
ttgttttttt tttttttttt tgaagtggag tctcgctctg ttgcccaggc ttgagtgcag    2760
tggcgcgatc tcagctcact gcaacctctg cctcccaggt tcaagccatt ctcttgcctc    2820
agcctcctga atagctggga ttacaagtgc acgccaccat gcccagctaa ttttttgtgtt   2880
tttagtagag accaggtttc accatgttgg tcaggcagt                           2919


<210> 8891
<211> 224
<212> DNA
<213> Homo sapiens

<400> 8891
aagggacaag gactgaaaaa ctgcctattg ggtactatgc ccactaccta gttgatggga    60
tccttcatac cccaaacctc agcattacac aatataacca tggaacagac accctgaat     120
gcacatgcac cccctgaatc taagacaagt tcaagttatt aaaaaaaaaa aaaaagatg     180
aagatgggga taggttgaga atgaggaaag aacaagaggt tttg                     224


<210> 8892
<211> 286
<212> DNA
<213> Homo sapiens

<400> 8892
catgcttcat ggttggagaa acaccaacat cagccgggcg cggtggctca agcctgtaat    60
cccagcactt tgggaggccg tcactggcag atcacttgag gtcaggagtt caagacctgc    120
ctggccaaca tggtgaaatc ccgtctctac tgaaaataca aaaattagcc aggcatggtg    180
gcaggcacct gtaatcccag ctacttggga ggcaggggca ggagaatcac ttgaatccag    240
gaggcagagg ttgcagtgca tcaaaggtag cactttggca tagcta                   286


<210> 8893
<211> 4132
<212> DNA
<213> Homo sapiens

<400> 8893
gaagacgatg ggaatcacat taaaaaggag aagcatcctc tcctcgtcgg acacatgccc    60
gtgatggtgg ccaagcagca ggagttcaag gtgaagggag gcagggcccg cggcccgggg    120
tgggacgcac ctcgcagctc tgaatgggcc acttgggaga tgattcttaa ggggcgtggt    180
cagaacatgg tcctcccagg ttcaccacag tgaccgcttc tctagaggtc atttatctgg    240
aaataagact gctgttgatt gaaacctaaa aaaacgccca gccattgtct ctgaagccca    300
gtcctgggcc aggaccctgg ggtattccag cagtgccaca gcacctgagg ccttgttagt    360
taaagagggg acacgtgttt cacatttgta gctctgtttt gcctttgctt ggcaagcagt    420
ctgtttccac agtggatcgt aactccaggt ctcctgtctg cttgaggtac cgtgcccgct    480
ctttgccttg gcagactcca tctccagggt ggcgtcttat taatgttccc agtgttgctg    540
actcaggcat cacaggccag ggccttcagt gacgctgaca atgtcttatt ctttaagaaa    600
taaagatgtt tcttctcacc ctgctctctg gccagggttt cccagcagct cccctgaccc    660
ctcctgttga gagttgcagg cggtgcacag gactcctctg ggagaggctg gggtgggaca    720
gggaagggga gaggcacagg ccatcacagg ctgtacttga tgcctgcagg ccagccctc     780
ccatctgaag cgccctgagc tgccggattt cagtgtgctg atgggatcta aagattaaga    840
taccaaaggt tgaatctcct taggtgttca cttctaaaaa gctaacttct gagagttgta    900
cttttaaact ttcatcctcc ctattttaat cttttggtagg taatgaacct gtaatttctg    960
tgtttataca ttggaagtaa gtcatccatt taagacgtta tgtagtctag gagcctctta    1020
gctctgtttt atatgtgagc gtttgatttt attccatttt agattgaatg tgctgcttat    1080
aaccctgaac cttacctaaa taatgaaagc cagccagatt cattttccac ggcacatggt    1140
ttcctgtggg taagatgtgt ttatttggtt ttggtacaag ttcacagaga atcaacgttc    1200
atggtcggtg tgatgagaga ctgagatgtg aattgctcag tagagagttg gcggtggcgt    1260
atcccagagt gtacttagaa acatgaaaac ttctttgaaa gggagctgat cacttttgga    1320
aaagatttac agttcttagg aatgcaaata tttgtttctt ttccttttca tctaaaacat    1380
ttaccagata aagttgagtc cagagacaac taactaataa gagaataatt ttaatatgtt    1440
```

6594

```
tttccatttt ggtgtcaaca ttgcatggat ttttttttctt gttccaagac tggctttttc   1500
cagtggaaac ttagcagtta aaattaattt gttccaaatg aaatattgca tctgaaatta   1560
ggctggaatt gcagtagacg ttcctggttc ttgcaaacca gaggacattc ttgaagctgt   1620
gtggtcccag gctctcccct ctctggtttc ctgtgttccc tccctgcagc ctcagactcg   1680
ccctccaggg ctccactgtg cttttccaaa ctctcatcct ttcctcccag gcgtcctgtg   1740
cagcacgcca ctgcctctca cttctcacat ccacagctcc tgcttggtca gtgttcctag   1800
ttgagtgtca gaaattgaac aacccaatta gctggtattt catttgtacc aacctatgaa   1860
tggaggagta gccttaattc ccttgggggc ttccacttct aagagaactg ttttccgtcc   1920
aggtaggcag acctgtcatg gctgaagctt catcacctgg cctggtcata gcccccaggc   1980
cctgtaggca ggacaggggc ttggcagatt ggcatccttc ccacaaaagc atgaaagtag   2040
gatgtctgta tgtagcgaca acaaatacaa gaataaggag agtttaacaa cattctcaaa   2100
gttggtggaa aagaaaaaga atcaatgaaa acatcaccct aaaccagcta gtgctttctg   2160
tttacaggga tcagacccct tcccacttaa aaaaaaaaag acaaataaat ttaagtttaa   2220
attgggaaac taactgtgct atgtgttctc gttgtagaga ttcaaacaca caggaagttc   2280
atgtacactg ttgcagcaat gctactttag aaattccacg gcaggcgtgg tggctcatgc   2340
ctgtaatccc agcactttgg gaggccgagg cgggtggatc acaaggtcag gagtttgaga   2400
ccagcctggc caaacatagt gaaaccccgt ctgtactttc acatagtgaa accccatctc   2460
tactaagaat gcaaaaatta gccggatgtg gtggcacgag cctaaagtcc cagtttctca   2520
ggaggctgag gtggcagaat cgcttgaacc caggaggcag aggttgcagt gagccaagat   2580
catgccattg cactccagcc tgggtgacag agtgagactg tctccaaaaa aaagaaaaaa   2640
aaagaaattc cacagcatac cacatgttga cttccaatga gctacttggg atgcattctt   2700
actgatgttt ttcctatttg aaaggtttat tttcttagcc taggtcattg aatattagtg   2760
ttaagttatt aaaattgata ataatctgct tcttaggatt ttaaattgag gatagatggg   2820
cccttacctt catattgtga tgagtacgtg atttttaaag tatagaaatg tgactttgta   2880
gaaatgaaag ttacgctttt gctttaaaat ttttttgaaaa ctgaattaaa tgtgttgaaa   2940
agaaaaaggg gctctgtgag caattgtttta agaatttttt tttatttttt taagtgtgtt   3000
gattctcaca tgaaaatcga agcttgtcgt ggcctttaag ggtcaggttc cagcgtatta   3060
tggaagccgc cacatggtcg ttttcttctt tcctcctaat tctctgattc agatcggaag   3120
ttgcacccat caaatgggtc agattgccat cgtctcgttt caaaattcca ctcccaaagt   3180
cattgagtgc ttcaacgtgg aatctcgcat cctgtgcatg ctgtacgttc ccgtcgagga   3240
gaagcgcaga gagcctgggg cacccccgga ccccgagacc ccggccgtga gagcttctga   3300
tgtccccacg atctgtgtag ggatggagga gggaaggtag ggcatgctca ctgcgttaca   3360
gagaattagc aagctctgcc catggagggc gtggtgggga gcctgtcctg gaaagagtcc   3420
ttgactttga ctcaggagta gcccgtgcag gaattagggg ataccagggg aaattttttag   3480
ggtcattgca ctttgaaata actagtgaat tgggcccatg gaaattattc taggaaactc   3540
ttaaagagaa gtggtatttc tttaaagggg acagtttggc tgtttgccac tgaaatgtct   3600
catttatatt aatggttttg aaaaggacat tccccccttta tattttggaa taaaacagcc   3660
atattctatg tcatgatcat actgaattgc tgacaccatt taaaggagag ttaaaatgat   3720
tttcctgatg tgaagttcca agatacacag taggaagaac taagttttttt catatatccc   3780
agaatttccc tttttaaaaat aaagaaatca aggtggttgc aaatttttta aaagtactgg   3840
caagtgtccc taggaatgga gaaggaaggg caagagggaa gagttgaaat gtttgtgttt   3900
atgttaacag gcaccctcgt tcttgttaca acgagcaaat atatttatta gcttgtattt   3960
ttctcttaaa gcatttccat ttataaaagc agtcaaggct ccaagaaagt gagacttcag   4020
cactttttca ctcctgagaa gtccacagtc atgagcctgg cttgcacgtc tcagagcctg   4080
tacgctggcc tggtcaacgg ggcagtcgcc agctacgcca gagccccagg tg           4132

<210> 8894
<211> 4131
<212> DNA
<213> Homo sapiens

<400> 8894
gaagacgatg ggaatcacat taaaaaggag aagcatcctc tcctcgtcgg acacatgccc     60
gtgatggtgg ccaagcagca ggagttcaag gtgaagggag gcagggcccg cggcccgggg    120
tgggacgcac ctcgcagctc tgaatgggcc acttgggaga tgattcttaa ggggcgtggt    180
cagaacatgg tcctcccagg ttcaccacag tgaccgcttc tctagaggtc atttatccgg    240
aaataagact gctgttgatt gaaacctaaa aaaacgccca gccattgtct ctgaagccca    300
gtcctgggcc aggaccctgg ggtattccag cagtgccaca gcacctgagg ccttgttagt    360
taaagaggga cacgtgtttc acatttgtag ctctgttttg cctttgcttg gcaagcagtc    420
tgtttccaca gtggatcgta actccaggtc tcccgtctgc ttgaggtacc gtgcccgctc    480
```

6595

```
tttgccttgg cagactccat ctccagggtg gcgtcttatt aatgttccca gtgttgctga   540
ctcaggcatc acaggccagg gccttcagtg acgctgacaa tgtcttattc tttaagaaat   600
aaagatgttt cttctcaccc tggtctctgg ccagggtttc ccagcagctc ccctgacccc   660
tcctgttgag agttgcaggc ggtgcacagg actcctctgg gagaggctgg ggtgggacag   720
ggaaggggag aggcacaggc catcacaggc tgtacttgat gcctgcaggg ccagccctcc   780
catctgaagc gccctgagct gccggatttc agtgtgctga tgggatctaa agattaagat   840
accaaaggtt gaatctcctt aggtgttcac ttctaaaaag ctaacttctg agagttgtac   900
ttttaaactt tcatcctccc tattttaatc tttggtaggt aatgaacctg taatttctgt   960
gtttatacat tggaagtaag tcatccattt aagacgttat gtagtctagg agcctcttag  1020
ctctgtttta tatgtgagcg tttgatttta ttccatttta gattgaatgt gctgcttata  1080
accctgaacc ttacctaaat aatgaaagcc agccagattc attttccacg gcacatggtt  1140
tcctgtgggt aagatgtgtt tatttggttt tggtacaagt tcacagagaa tcaacgttca  1200
tggtcggtgt gatgagagac tgagatgtga attgctcagt agagagttgg cggtggcgta  1260
tcccagagtg tacttagaaa catgaaaact tctttgaaag ggagctgatc acttttggaa  1320
aagatttaca gttcttagga atgcaaatat ttgtttcttt tccttttcat ctaaaacatt  1380
taccagataa agttgagtcc agagacaact aactaataag agaataattt taatatgttt  1440
ttccattttg gtgtcaacat tgcatggatt ttttttcttg ttccaagact ggcttttttcc  1500
agtggaaact tagcagttaa aattaatttg ttccaaatga aatattgcat ctgaaattag  1560
gctggaattg cagtagacgt tcctggttct tgcaaaccag aggacattct tgaagctgtg  1620
tggtcccagg ctctcccctc tctggtttcc tgtgttccct ccctgcagcc tcagactcgc  1680
cctccagggc tccactgtgc ttttccaaac tctcatcctt tcctcccagg cgtcctgtgc  1740
agcacgccac tgcctctcac ttctcacatc cacagctcct gcttggtcag tgttcctagt  1800
tgagtgtcag aaattgaaca acccaattag ctggtatttc atttgtacca acctatgaat  1860
ggaggagtag ccttaattcc cttggggggct tccacttcta agagaactgt tttccgtcca  1920
ggtaggcaga cctgtcatgg ctgaagcttc atcacctggc ctggtcatag ccccccaggcc  1980
ctgtaggcag gacaggggct tggcagattg gcatccttcc cacaaaagca tgaaagtagg  2040
atgtctgtat gtagcgacaa caaatacaag aataaggaga gtttaacaac attctcaaag  2100
ttggtggaaa agaaaaagaa tcaatgaaaa catcacccta aaccagctag tgctttctgt  2160
ttacagggat cagaccccctt cccacttaaa aaaaaaaga caaataaatt taagtttaaa  2220
ttgggaaact aactgtgcta tgtgttctcg ttgtagagat tcaaacacac aggaagttca  2280
tgtacactgt tgcagcaatg ctactttaga aattccacgg caggcgtggt ggctcatgcc  2340
tgtaatccca gcactttggg aggccgaggc gggtggatca caaggtcagg agtttgagac  2400
cagcctggcc aaacatagtg aaaccccgtc tgtactttca catagtgaaa ccccatctct  2460
actaagaatg caaaaattag ccggatgtgg tggcacgagc ctatagtccc agtttctcag  2520
gaggctgagg tggcagaatc gcttgaaccc aggaggcaga ggttgcagtg agccaagatc  2580
atgccattgc actccagcct gggtgacaga gtgagactgt ctccaaaaaa aagaaaaaaa  2640
aagaaattcc acagcatacc acatgttgac ttccaatgag ctacttggga tgcattctta  2700
ctgatgtttt tcctatttga aaggtttatt ttcttagcct aggtcattga atattagtgt  2760
taagttatta aaattgataa taatctgctt cttaggattt taaattgagg atagatgggc  2820
ccttaccttc atattgtgat gagtacgtga tttttaaagt atagaaatgt gactttgtag  2880
aaatgaaagt tacgcttttg ctttaaaatt ttttgaaaac tgaattaaat gtgttgaaaa  2940
gaaaaggggg ctctgtgagc aattgtttaa gaattttttt ttattttttt aagtgtgttg  3000
attctcacat gaaaatcgaa gcttgtcgtg gcctttaagg gtcaggttcc agcgtattat  3060
ggaagccgcc acatggtcgt tttcttcttt cctcctaatt ctctgattca gatcggaagt  3120
tgcacccatc aaatgggtca gattgccatc gtctcgtttc aaaattccac tcccaaagtc  3180
attgagtgct tcaacgtgga atctcgcatc ctgtgcatgc tgtacgttcc cgtcgaggag  3240
aagcgcagag agcctggggc accccggac cccgagaccc cggccgtgag agcttctgat  3300
gtccccacga tctgtgtagg gacggaggag ggaaggtagg gcatgctcac tgcgttacag  3360
agaattagca agctctgccc atggagggcg tggtggggag cctgtcctgg aaagagtcct  3420
tgactttgac tcaggagtag cccgtgcagg aattagggga taccagggga aatttttagg  3480
gtcattgcac tttgaaataa ctagtgaatt gggcccatgg aaattattct aggaaactct  3540
taaagagaag tggtatttct ttaaagggga cagtttggct gtttgccact gaaatgtctc  3600
atttatatta atggttttga aaaggacatt ccccccttat attttggaat aaaacagcca  3660
tattctatgt catgatcata ctgaattgct gacaccattt aaaggaaagt taaaatgatt  3720
ttcctgatgt gaagttccaa gatacacagt aggaagaact aagttttttc atatatccca  3780
gaatttccct tttaaaaata aagaaatcaa ggtggttgca aattttttaa aagtactggc  3840
aagtgtccct aggaatggag aaggaagggc aagagggaag agttgaaatg tttgtgttta  3900
tgttaacagg caccctcgtt cttgttacaa cgagcaaata tatttattag cttgtatttt  3960
tctcttaaag catttccatt tataaaagca gtcaaggcgc caagaaagtg agacttcagc  4020
acttttcac tcctgagaag tccacagtca tgagcctggc ttgcacgtct cagagcctgt  4080
acgctggcct ggtcaacggg gcagtcgcca cctacccag agccccaggt g            4131
```

                                    6596

```
<210> 8895
<211> 1752
<212> DNA
<213> Homo sapiens

<400> 8895
gaagagacct tgggtaataa gcttgccact gagtggctgc tttatgtcct caagggattg    60
taccatatca agcactcagc attggtgtct gttgctaatg gtcaggcatt cagtagtggt   120
ggtagctaga tcagccttgg agagagagag cccatcattt caggccatca cgactaatcc   180
attcatttat gggccctttg taaggattga gatggctgag gacaggggct gacaggcatt   240
cattagacca gtcatcctgt ccatatgctt attcagtgct tcttctgcca cacgtgctct   300
ctggtgggct ctagtgtgag acacaaagat caacacatta tgtgcccatt cttatagctc   360
cagccacatg cctcttcctc agacatgctt ggtttcaatc ctctagtgtt gttcccttga   420
ggcccttgac caagcaacca agccattctc caccacctag aagtctgtgt atattcttac   480
ttttggccgc ttctctccag acacaaagca gatgaccact ggacttgaat tggcacccag   540
agttattttg ggtgtgtctt tagtgcagca acagtccata ttttttagctc acgccagcat   600
atcatgctag cctaatcctt ataaagccct tttcctgctc cttttctatt ctgtcaactg   660
tctgtggaga aatccccaag gggccatagg tattatgtct ggaattggtt ctctccgagg   720
ggttcttggt ctcgctgact tcaagaatga agccatggac cctcgcagtg agtgttgcag   780
ttcttaaaga tggtgtgtcc ggagtttgtg ttttcagatg ttcagatgtg tctggaggag   840
tttcttcctt ctggtgggct cgtggtctcg ctgacttcag gagtgaagcc acagaccttc   900
acagtgagca ttacagctct taaaggtggt gcgtccagag ttgtttgttc ctcccggtgg   960
gtttgtggtc tcactggctt caggagtgaa gctgcagacc tttgcagtga gtgttacagc  1020
tcataaaggt agtgtggacc caaagagtga gcagcagcaa gatttattgt gaagagtgaa  1080
agaaaaaagc ttccacagcg tggaagggga cctgagaagg ttgccgccac tggctcgggt  1140
ggccagcttt tattcccttac tttggccccg ccctcatcct cctgattggt ccgttttaca  1200
gggtgctgat tgccccattt tacagagtgc tgattggtcc gtttttacag agtgctgatt  1260
ggtgcgttta caaacctta gttagacaca gagtgctaat tggtgcattt ttacagagtg  1320
ctgattggtg catttacaaa cctttggcta gacacagagc gcttattggt gcatttacaa  1380
tcctttagct aggcagaaaa gttctccaag tccccaccca acccagaagt ccagctggct  1440
tcacttctca atcctccttc taaacaggac accacaagtg ttgttgggaa ttggccgatg  1500
accgctctag ctatttcctg ctggataggg gcaaagaagg ggccctgcag ttgtagtgtc  1560
ctccagaggg gaactcttta ggccagtgaa agggccagca ggttggtctg gggtcctcag  1620
tagaagttgt tagttgagct catttgggggt tccatttgta agaccatctg tagcttgatg  1680
gcctcaattc tagaggaaac aaatttgaca aggagattaa aaatacaggg tccaaaggca  1740
agaaatagca ag                                                       1752


<210> 8896
<211> 685
<212> DNA
<213> Homo sapiens

<400> 8896
gcaaacatgg tgaaacccca tctctactca aaatacaaaa attagttagg catggtggca    60
cacacctgta atcccagcta cttcggaggc tgaggcacaa gaatcgcttg aacccgggag   120
gtgcaggttg cagtgagcca agatcacacc actgcactcc agcctgggca gcagagtgag   180
accgtgtccc aaaaaagaga aggagaaaca gagatcatgt ggaaaaagtt attttttatt   240
tatttactta gttttcagtt tggtttgaga ctcgtgtttt aaaccagagg gcatggttac   300
tgagggataa catcaataga actcctataa ttgaggggat aattatcaag gtattagatg   360
attcactggc tattacaaag aacacagaaa ttatgaaacc tggttctgta acttatagtt   420
tttcatatta tttttatacc atggacaact cttctatgtg tattcatagg tgtaagatta   480
ctggcagtgt catatgaaac aacgtattac attttttaag cctggaaagc atctagtatg   540
gctgtgcacg tagtgatgac attgactttt tttacttaaa gaagagctac cacttcaaat   600
ccacacggtg gcagttctcc tgcctagcca gctgccactg gactctctcc cctgtatata   660
agcccccaat aactacgtct tattt                                         685


<210> 8897
```

<211> 618
<212> DNA
<213> Homo sapiens

<400> 8897

```
ctccaaactg ttttccatag tggttgtact gatttagatt tccaccaaga gatatgtatg      60
agagttccct tttctccaca ttcttgccag catttgttat tgcctgtctt ttggataaaa     120
accatttgaa ctagggtgag atgacatctc attgtagttt tgatttgcat ttgtctgatg     180
ataattatgt tgagcactga tatggtttgg atctgtgtcc ccaccaaatc tcatgttgaa     240
ttgtagctcc cagtgttgga ggtggggtct gctggagggt ggttggattt ctcatgaatg     300
gtttcatact gtcctcttgg tgctgttctt gtgatagtga gtgagttctc atgagatttg     360
gttatttaaa agcgtacagc acctccccgc tcactctctc ttgctcctgc ttccgccatc     420
taagatgcct tactccctct ttgctttctg ccatgattgg cagtttcttg aggcctctcc     480
agaagcagaa gctgctatgc ttcctataca gcctacaaaa ctgtaagcca attaaaactc     540
tttttctttat aaattaccca gtctcaggta tttctctgta gcagcatgag aacggattaa     600
tacaagtctc aggtattt                                                    618
```

<210> 8898
<211> 614
<212> DNA
<213> Homo sapiens

<400> 8898

```
ctccaaactg ttttccatag tggttgtact gatttagatt tccaccaaga gatatgtatg      60
agagttccct tttctccaca ttcttgccag catttgttat tgcctgtctt ttggataaaa     120
gccatttgaa ctagggtgag atgacatctc attgtagttt tgatttgcat ttctctgatg     180
ataattatgt tgagcactga tatggtttgg atctgtgtcc ccaccaaatc tcatgttgaa     240
ttgtagctcc caatgttgga ggtggggtct gctggagggt ggttggattt ctcatgaata     300
gtttcatact gtcctcttgg tgctgttctt gtgatagtga gttctcatga gatttggtta     360
ttcaaaagcg tacagcacct ccccgctcac tctctcttgc tcctgcttcc gccgtctaag     420
atgccttact ccctctttgc tttctgccat gattggcagt ttcttgaggc ctctccagaa     480
gcagaagctg ctgtgcttcc tgtacagcct acaaaactgt aagccaatta aaactctttt     540
ctttataaat tacccagtct caggtatttc tttatagcag cgtgagaatg gattaataca     600
agtctcaggt attt                                                        614
```

<210> 8899
<211> 614
<212> DNA
<213> Homo sapiens

<400> 8899

```
ctccaaactg ttttccatag tggttgtact gatttagatt tccaccaaga gatatgtatg      60
agagttccct tttctccaca ttcttgccag catttgttat tgcctgtctt ttggataaaa     120
gccatttgaa ctagggtgag atgacatctt attgtagttt tgatttgcat ttctctgatg     180
ataattatgt tgagcactga tatggtttgg atctgtgtcc ccaccaaatc tcatgttgaa     240
ttgtagctcc caatgttgga ggtggggtct gctggagggt ggttggattt ctcatgaata     300
gtttcatact gtcctcttgg tgctgttctt gtgatagtga gttctcatga gatttggtta     360
ttcaaaagcg tacagcacct ccccgctcac tctctcttgc tcctgcttcc gccgtctaag     420
atgccttact ccctctttgc tttctgccat gattggcagt ttcttgaggc ctctccagaa     480
gcagaagctg ctgtgcttcc tgtacagcct acaaaactgt aagccaatta aaactctttt     540
ctttataaat tacccagtct caggtatttc tttatagcag cgtgagaatg gattaataca     600
agtctcaggt attt                                                        614
```

<210> 8900
<211> 436
<212> DNA
<213> Homo sapiens

<400> 8900

```
tggcctccca aagtgctggg attacaggtg tgagccaccg catctggcca atcttttctt      60
tttctttcat aaaagttgta ctatttatga agtacatgtg atattttgac acatagacac     120
aatgtgtaat aatcgaataa aagaaattcg gatatccata acttcaggca tttatcattt     180
ctttgtatta ggcacattcc aattccactc tcagttattt tgaaatatac taaaaatcat     240
tgttaactac attcaccct ttgtgctacc aaacactaga tcttattctt tccatataac     300
tgtattttg tacccattaa ccatctcctt tttatcctcc cttctccact acccttttta     360
gcttctgcta accatcatta tacctctacc tccatgagtt caattttttt tggctctccc     420
ataggagtga gaacat                                                      436
```

<210> 8901
<211> 436
<212> DNA
<213> Homo sapiens

<400> 8901

```
tggcctccca aagtgctggg attacaggtg tgagccaccg cacctggcca atcttttctt      60
tttctttcat gaaagttgta ctatttatgg agtacatgtg atgttttgac acatagacaa     120
aatgtgtaat aatcgaatca aagaaattcg gatatccata acttcaggca tttatcattt     180
ctctgtatta ggcacattcc aattccactc tcagttattt tgaaatatac tataaatcat     240
tgttaactac attcaccct ttgtgctacc aaacactaga tcttattctt tccatataac     300
tgtattttg tacccattaa ccatctcctt tttatcctcc cttctccact acccttttta     360
gcttctgcta accatcatta tacctctacc tccatgagtt caattttttt tagctgtccc     420
atagtagtga gaacat                                                      436
```

<210> 8902
<211> 436
<212> DNA
<213> Homo sapiens

<400> 8902

```
tggcctccca aagtgctggg attacaggtg tgagccaccg cacctggcca atcttttctt      60
tttctttcat gaaagttgta ctatttatgg agtacatgtg atgttttgac acatagacaa     120
aatgtgtaat aatcgaatca aagaaattcg gatatccata acttcaggca tttatcattt     180
ctctgtatta ggcacattcc aattccactc tcagttattt tgaaatatac tataaatcat     240
tgttaactac attcaccct ttgtgctacc aaacactaga tcttattctt tccatataac     300
tgtattttg tacccattaa ccatctcctt tttatcctcc cttctccact acccttttta     360
gcttctgcta accatcatta tacctctacc tccatgagtt caattttttt tagctgtccc     420
atagtagtga gaacat                                                      436
```

<210> 8903
<211> 1311
<212> DNA
<213> Homo sapiens

<400> 8903

```
ggaggaattg ctatttaagt ggaaagtgct tgaacagcca aatgagcacc tgtcatgttt      60
attttcactt tgaaaagtag aaacatgaca gtatagtttc cactgcctat ccaatatgaa     120
cttctggcat tcttgttatc ttctcaggaa ctgcactgtt tgcttcttgt gttcaatttt     180
tttttttttc cagggatgag gatgtatctc tcctcctgaa actttcactc taaaatatgc     240
ccccaaatac tgacattttc aagcttgtgc ttttttactt gatatctgat ttttttttaaa     300
tttttattta ataggggaga ggtcatgact tatggaattt actctaagga tagggatctg     360
agcaggttcc tgagtacttg aaaggcttta tttacctctt acacttttt gttacatcca     420
ggttttgct catttctcta tcatttgtgt cttgaacttt acctgaaatg catgtcttga     480
gtgcctacta aggtccaggc attgtgctgg cagatttgat atattttgt ttattcctta     540
ttacaggact attacatagt agactctcat tctgacactc acttttttt tccagaaaaa     600
aaaattaatg gagattgatt gctaatgggt acaggctgc ttttaaggct atgaaaatgc     660
tctaaaatta gtttgtggtg atggttgcac atctctgaac gtactaaaat acattgaatt     720
```

```
atatactttc ttttttcttc gttttgcagc ttttgctcaa aggagaatta gatatttaaa     780
atgagtgaat tgtatggtac atgaattaga tctcaataaa actattttaa aaaaagaaac     840
taaagcttag agaagtataa tatcttgttc aatatgacac tacctggtaa agcttttgtc     900
caaatttttc tgagaccaaa gctattcttt cttccactga cgcatgctat ctctactaat     960
tatatagcca cggtatcctt tttctttaaa aatgtaggaa aaaatggctg ggtgcggtgg    1020
ctcacgcctg taatcccagc actttgggag gccaaggcgg acggatctct tgaggtcagg    1080
agtttgagac cagcctggcc aacatggtga taccccacct ctactaaaaa aaaaaaaaaa    1140
aaaaaaaaat tagccaggtg tggtggcgtg cacctgtaat cccagctact cgggaggctg    1200
aggcatgata atcacttgaa cctgggaggc agaggttgca gcgagtcaag attgcaccac    1260
tgcactccag cctgggcaac agagtgagac tccgtctcaa aaaaaaaaa a              1311
```

                                        —

```
<210> 8904
<211> 1311
<212> DNA
<213> Homo sapiens

<400> 8904
ggaggaattg ctatttaagt ggaaagtgct tgaacagcca aatgagcacc tgtcatgttt      60
attttcactt tgaaaagtag aaacatgaca gtatagtttc cactgcctat ccaatatgaa     120
cttctggcat tcttgttatc ttctcaggaa ctgcactgtt tgcttcttgt gttcaatttt     180
tttttttttc cagggatgag gatgtatctc tcctcctgaa actttcactc taaaatatgc     240
ccccaaatac tgacattttc aagcttgtgc ttttttactt gatatctgat tttttttaaa     300
tttttattta ataggagaa ggtcatgact tatggaattt actctaagga tagggatctg     360
agcaggttcc tgagtacttg aaaggctta tttacctctt acactttttt gttacatcca     420
ggttttgct catttctcta tcatttgtgt cttgaacttt acctgaaatg catgtcttga     480
gtgcctacta aggtccaggc attgtgctgg cagatttgat atatttttgt ttattcctta     540
ttacaggact attacatagt agactctcat tctgacactc acttttttt tccagaaaaa     600
aaaattaatg gagattgatt gctaatgggt acagggctgc ttttaaggct atgaaaatgc     660
tctaaaatta gtttgtggtg atggttgcac atctctgaac gtactaaaat acattgaatt     720
atatactttc ttttttcttc gttttgcagc ttttgctcaa aggagaatta gatatttaaa     780
atgagtgaat tgtatggtac atgaattaga tctcaataaa actattttaa aaaaagaaac     840
taaagcttag agaagtataa tatcttgttc aatatgacac tacctggtaa agcttttgtc     900
caaatttttc tgagaccaaa gctattcttt cttccactga cgcatgctat ctctactaat     960
tatatagcca cggtatcctt tttctttaaa aatgtaggaa aaaatggctg ggtgcggtgg    1020
ctcacgcctg taatcccagc actttgggag gccaaggcgg acggatctct tgaggtcagg    1080
agtttgagac cagcctggcc aacatggtga taccccacct ctactaaaaa aaaaaaaaaa    1140
aaaaaaaaat tagccaggtg tggtggcgtg cacctgtaat cccagctact cgggaggctg    1200
aggcatgata atcacttgaa cctgggaggc agaggttgca gcgagtcaag attgcaccac    1260
tgcactccag cctgggcaac agagtgagac tccgtctcaa aaaaaaaaa a              1311


<210> 8905
<211> 611
<212> DNA
<213> Homo sapiens

<400> 8905
gaaataaaat gtagacattc tctttcccct tgctttccca tctggtcctt tgtaagtgtt      60
agcgtaaaga tagttatgtt gacatattta aatatatgtt gctgctgctg tatttttaaa     120
aaacataaat gatactttat tataaatatt actctagtgt ttgttttttg tacataatat     180
gtgctggaaa ttttttttatg tcagtatgtc attcatatta ttattgttat tataaaaata     240
ctacatgcac aaggaaataa aaattgaaag atttaaaatg gaaagttgag gaagatctaa     300
aatggaaagt gaaaaactcc acctatcccc aagttccatc ccttagaggt aactgctttt     360
cactgtattt gcgtttatt ctttgattac ctccctaacc cttaaacata tatatacttg     420
tactttatt tctttaataa ctttaagcat tcttggttgt tgatcagtta agaatgacag     480
aaacaggcag attgctggag cccggaagtt tgagtccagc ctgggcaaca tggcaaaact     540
ctgtctctac aaaaaataca aaaaaaaaa aaaaaaagc caggtaagcc aggtatggtg     600
gcaaacaccc g                                                          611
```

<210> 8906
<211> 611
<212> DNA
<213> Homo sapiens

<400> 8906
gaaataaaat gtagacattc tctttcccct tgctttccca tctggtcctt tgtaagtgtt   60
agcgtaaaga tagttatgtt gacatattta aatatatgtt gctgctgctg tattttaaa   120
aaacataaat gatactttat tataaatatt actctagtgt ttgtttttg tacataatat   180
gtgctggaaa ttttttatg tcagtatgtc attcatatta ttattgttat tataaaaata   240
ctacatgcac aaggaaataa aaattgaaag atttaaatg gaaagttgag gaagatctaa   300
aatggaaagt gaaaaactcc acctatcccc aagttccatc ccttagaggt aactgctttt   360
cactgtattt gcgtttttatt ctttgattac ctccctaacc cttaaacata tatatacttg   420
tacttttatt tctttaataa ctttaagcat tcttggttgt tgatcagtta agaatgacag   480
aaacaggcag attgctggag cccggaagtt tgagtccagc ctgggcaaca tggcaaaact   540
ctgtctctac aaaaaataca aaaaaaaaa aaaaaaagc caggtaagcc aggtatggtg   600
gcaaacaccc g   611

<210> 8907
<211> 295
<212> DNA
<213> Homo sapiens

<400> 8907
actactggcc gggtgcggtg gctcacgcct gtaatcccag cactttggga ggctgaggcg   60
ggcggatcat gaggtcagga gatcgagacc atcctggcta acacggtgaa accccgtctc   120
tactaaaaat acaaaaaatt agccaggcgc ggtggcaggc ccctgggaga ggctgaggca   180
ggagaatggc gtgcacccgg gaggtggagc tttcagtgag ctgagattat gccactgcac   240
tccagcctgg gcgacagagc cagactccgt ctcaaaaaaa aaaaaaaaa aagaa   295

<210> 8908
<211> 200
<212> DNA
<213> Homo sapiens

<400> 8908
cccagcactt tgggaggccg aggcgggcgg atcacgaggt caggagatcg agaccatcct   60
ggctaacaag gtgaaactcc gtcactacta aaaatataaa aaattggccg ggagtggtgg   120
cgggtgcctg tggtcccagc tactcgggag gctgaggcag gagaatggcg tgaacccggg   180
aagcggagct ggcagtgagc   200

<210> 8909
<211> 303
<212> DNA
<213> Homo sapiens

<400> 8909
tctggccggg cgccgtggct cacgcctgta atcccagcac tttgggaggc cgaggcaggc   60
ggatcatgag gtcaggagat tgagaccatc ctggctaaca cggtgaaacc ctgtctctac   120
taaaaataca aaaattagc agggcgtggt ggcaggcacc tgtagtccca gctactcagg   180
aggttgaggc aggagaatgg cgtgaaccag ggaggtggag cttgcagtga ccgagatcg   240
caccacggca ctccagcctg gatgacagag caagactccg tctcaaaaaa aaaaaaaaaa   300
aag   303

<210> 8910
<211> 305
<212> DNA

<213> Homo sapiens

<400> 8910

```
ttaccggcca ggcgtggtgg ctcacgcctg taatcccagc actttgggag gccgaggcgg      60
gcagatcacg aggtcaggag atcgagacca tcctggctaa catggtgaaa ccccgtctct     120
actaaaaata caaaaaatta gcctggtgtg gtggcgggca cctgcagtcc cagctactcg     180
gaaggctgag gcaggagaat ggcgggaacc caggaggcga aggctgcagt gagctgagat     240
cgcgccactg cactccagcc tgggcgacag agcgagactc catctcaaaa aaaaaaaaaa     300
agaaa                                                                305
```

<210> 8911
<211> 326
<212> DNA
<213> Homo sapiens

<400> 8911

```
atgaaatagg ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg gaggccgagg      60
cgggtggatc atgaggtcag gagatcgaga ccatcctggc taacaaggag aaaccccgtc     120
tctactaaaa atacaaaaaa ttagccgggc gcggtggcgg gcgcctgtag tcccagctac     180
tggggaggct gaggcaggag aatggcgtga acccgggaag cggagcttgc agtgagccga     240
gattgcacca ctgcagtccg cagtcgggcc tgggcgacag agcgagactc cgtctcaaaa     300
aaaaaaaaaa aaaaagaatg aaataa                                         326
```

<210> 8912
<211> 319
<212> DNA
<213> Homo sapiens

<400> 8912

```
tttggccggg cgcggtggct cacgcctgta atcccagcac tttgggaggc agaggcgggc      60
ggatcatgag gtcaggagat cgagaccatc ctggctaaca cagtgaaacc ccgcctctac     120
taaaaataca aaaattagc cgggcgtggt ggcgggcgcc tgtagtccca gctactcggg     180
aggctgaggc gggagaatgg cgtgaacccg ggaggcggag cttgcagtga gccgagatcg     240
cgccactgca ctccagcctg gcgacagag cgagactccg tctcaaaaaa aaaaaagaaa     300
aaaaaaaaaa agagcacaa                                                 319
```

<210> 8913
<211> 163
<212> DNA
<213> Homo sapiens

<400> 8913

```
ctgggcgtgg tggctcacgc ctgtaatcct agcactttgg gaggccaagg caggtggatc      60
acgaggccag gagatcgaga ccatcctggc taacatggtg aaaccccgtc tctactaaaa     120
atacaaaaat tagctgggca tggtggtgtg tgcctgtaac ccc                      163
```

<210> 8914
<211> 316
<212> DNA
<213> Homo sapiens

<400> 8914

```
gaattcttgg ccgggcacgg tggctcacgc ctgtaatccc agcactttgg gaggccgagg      60
cgggcggatc acgaggtcag gagatcgaga ccatcctggc taacacggtg aaaccccgtc     120
tctactaaaa atacaaaaaa ttagccgggc gtggtagcgg gcgcctgtag tcccagctac     180
tcgggaggct gaggcaggag aatggcgtga acctggcagg cggagcttgc agtgagccga     240
gatcgcgcca ctgcactcca gcctgggtga cagagcgaga ctccgtctca aaaaaaaaaa     300
```

aaaaaaaaaa gaattc

<210> 8915
<211> 305
<212> DNA
<213> Homo sapiens

<400> 8915
gggcgcggtg gctcacgcct gtaatcccag cactttggga ggccgaggcg ggcggatcac   60
gaggtcagga gatcgagacc atcccagcta aaacggtgaa accccgtctc tactaaaaat   120
acaaaaaatt agccgggcgt agtggcgggc acctgtagtc ccagctactt gggaggctga   180
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga tcccgccact   240
gcactccagc ctgggcgaca gagcgagact ccgtctcaaa aaaaaaaaa aaaaaaaaa   300
agaaa   305

<210> 8916
<211> 300
<212> DNA
<213> Homo sapiens

<400> 8916
cggtggctca cgcctgtaat cccagcactt tgggaggccg aggcgggcgg atcacgaggt   60
caggagatcg agaccatccc ggctaaaatg gtgaaacccc gtctctacta aaaatacaaa   120
aaattagccg ggcgtagtgg cgggcgcctg tggtcccagc tacttgggaa gctgaggcag   180
gagaatggcg tgaacccggg aggcggagct tgcagtgagc cgagatcccg ccactgcact   240
ccagcctggg cgacagagcg agactccgtc tcaaaaaaaa aaaaaaaaa aaacttgaga   300

<210> 8917
<211> 316
<212> DNA
<213> Homo sapiens

<400> 8917
aatttgttca attcggccgg gcgcggtggc tcacgcctgt aatcccagca ctttgggagg   60
ccgaggcggg cggatcacga ggtcaggaga tcgagaccat cccggctaaa acggtgaaac   120
cccgtctcta ctaaaaatac aaaaaattag ccgggcgtag tggcgggcgc ctgtagtccc   180
agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg   240
agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa   300
aaaaaaaaaa aatttg   316

<210> 8918
<211> 157
<212> DNA
<213> Homo sapiens

<400> 8918
gtggtgactc cgctgtaatc acagcacttt gggaggccga gacaggtgga tcacgaggtc   60
aggagatcga gaccatcctg gctaacacgg tgaaaccccg tctctactaa aaatacaaaa   120
aaattagccg ggcatggtgg caggtgcctg tcgtccc   157

<210> 8919
<211> 283
<212> DNA
<213> Homo sapiens

<400> 8919

```
cgcctgtaat cccagcactt tggaaggccg aggcggccgg atcacgaggt caggagatca    60
agaccatcct ggctaacacg gtgaaacccc gtctctacta aaaatacaaa aaattagcca   120
ggcgtggtgg cggggggcctg tagtcccagc tactcgggag actgaggcag gagaatggcg   180
tgaacccggg aggtggagcc tgcagtgagc cgagatcgcg ccactgcact ccagcctggg   240
cgacagagcc agactccatc tcaaaaaaaa aaaaaaaaaa aaa                      283


<210> 8920
<211> 1052
<212> DNA
<213> Homo sapiens

<400> 8920
tcacgcctgt aatcccagca ctttgggagg ccgaggcagg tggatcacga ggtaaggaga    60
tcgagaccat cctggctaac acggtgaaac ccgtctcta ctaaaaatac aaaaaattag   120
ccgggcatgg tggcaggcgc ctgtggtccc agttacccag gaggctgagg caggagaatg   180
gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc gagccactgc actccagcct   240
gggcaacaga gctagactcc gtctcaaaaa aaaaaaaaaa ttattgttta tatttgagat   300
gagaattctt gatacatttt ttggtatatt aaaaagtgag ataaattgtt tgtgctttaa   360
catgtaaatt gcatcgtaga ttcataaaat tcatcttgga tttatttcta gcacagtact   420
ttctattgaa agcagtttac tatcaagaaa atctatcaaa ggggatggaa tcccacctctt   480
cattttcatg aattgtttta aaagtgttc ttctggccag ggtcggtggc tcacacctgt   540
aatcccagca ctttgggagg tcgaggtggg tggatcacga ggtcaggaga tcgagaccat   600
cctggccaac atggtgaaac ctcgtctctg ctaaaaatac aaaaatttgc tgggtgtgac   660
cgcacgtgac tgtaatccca gctactcggg aggctgaggc aggagaatcg cttgaacctg   720
ggaggcggag gctgcagtga accaagatcg tgccgctgca ctccagcctg gcaacagagc   780
cagactccgt ctggaaaaaa aaacaaaaca aaaacaatg ccgggcgcgg tggctcacgc   840
ctgtaatccc agcactttgg gaggccgagg caggcggatc acgaggtcag gagatcgaga   900
ccatcctggc taacacggtg aaaccctgtc tctactaaaa atacaaaaaa ttagccgggc   960
gtggtggcag gcgcctgtag tcccagctac tcgggaggct gaggcaggag aatggcatga  1020
acccgggagg cggaacttgc agtgagccga ga                                1052


<210> 8921
<211> 203
<212> DNA
<213> Homo sapiens

<400> 8921
attttacctt gtgccgggca cggtggctca cgcctgtaat cccagcactt tgggaggctg    60
aggcgggcgg atcaagaggt caggagatcg agaccatcct ggctaacacg gtgaaacccc   120
gtctctacta aaaatacaaa aaattagccg ggcgtggtgg cgggcgcctg tagtcccagc   180
tactcgggag gctgaggcag gag                                           203


<210> 8922
<211> 293
<212> DNA
<213> Homo sapiens

<400> 8922
gtggctcacg cctgtaatcc cagcacttcg ggaggccgag gtgggtggat cacgaggtca    60
ggagatcgag accatcctgg ctaacacggt gaaaccccgt ctctactaaa aatacaaaaa   120
attagctggg tgtggtggcg gcgcctgta gtcacagcta cttgggagac tgaggcagga   180
gaatggcatg aacccgggag gtgcagcttg cagtgagcag agatctcgcc actgcactcc   240
agcctgggcg acagagcgag acttcatctc aaaaaaaaaa agaaagaaag taa           293


<210> 8923
<211> 295
<212> DNA
```

6604

<213> Homo sapiens

<400> 8923
gtggctcatg cctgtaatcc cagcactttg ggaggctgag gcgggcggat cacaaggtca   60
ggagattgag accatcctgg ctaatatggt gaaaccccgt ctctactaaa aatacaaaaa   120
aattagccgg gcgtggtggc acacgcctgt aatcccagct acttaggagg ctgaggcagg   180
agaatggtgt gaacccggga ggcggagctt gcagtgagcc gagttcgggc cactgcactc   240
cggcctgggc aacagagcga gactccgtct caaaaaaaaa aaaaaaaaaa aaaaa   295

<210> 8924
<211> 138
<212> DNA
<213> Homo sapiens

<400> 8924
ggctaatgcc tgtaatccca gcactttggg aggctgaggc gggtggatca ctaggtcagg   60
agctcgagac catcctggct aacatggtga aaccccgtct ctactaaaaa tacaaaaaaa   120
ttgaccgggt gtggtggc   138

<210> 8925
<211> 167
<212> DNA
<213> Homo sapiens

<400> 8925
gcctgtaatc ccagcacttt gggaggccga ggcgggtgga tcacgagctc aggagatcaa   60
gaccatcctt gctaacacgg tgaaaccccg tctctactaa aaagacaaaa aattagctgg   120
acctggtggc gggcgcctgt agtcccagct acttgggagg ctgaggc   167

<210> 8926
<211> 300
<212> DNA
<213> Homo sapiens

<400> 8926
agcgcggtgg ctcacgcttg taatcccagc actttgggag gccaaggcgg gaggatcatg   60
aggtcaggag atccggacca tcctggctaa catggtgaaa ccccgtctct actaaaaata   120
caaaaaaatt agccaggcgt ggtggctggc gcctgtagtc ccagctactc gggaggctga   180
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga tcgcgccact   240
gcactccagc ctgggcgaca gagcaagact ccgtctcaaa aaaaaaaaa aagtgcaaac   300

<210> 8927
<211> 183
<212> DNA
<213> Homo sapiens

<400> 8927
tgtggtggct cacgcctgta atcccagcac tttgggaggc ggaggcgggt ggatcacgag   60
gtcaggagat cgagaccatc ctggctaaca tggtgaaacc ctgtctctat aaaaatacaa   120
aaaaattagc tgggcgtggt ggtgggcgcc tgtagtccca gctgctcagg aggctgaggc   180
agg   183

<210> 8928
<211> 184
<212> DNA
<213> Homo sapiens

<400> 8928
gtgcagtggc tcacgcctgt aatcccagca ctttgggagg ccgaggtggg tggatcacga   60
ggtcaggaga tcgaggccat cctggcccac atggtgaaac ctcgtctcta ctaaaaatac   120
aaaagttagc caggcatggt ggcatgtgcc tgtagtccca gctactcggg aggctgaggc   180
agga   184

<210> 8929
<211> 306
<212> DNA
<213> Homo sapiens

<400> 8929
tttaggccgg gcgcgggggc tcacgcctgt aatcccagca ctttgggagg ccgaggcggg   60
cggatcacga ggtcaggaga tcgagaccat cccggctaaa acggtgaaac ccgtctctac   120
taaaaataca aaaaattagc cgggcgtagt ggcgggcgcc tgtagtccca gctacttggg   180
aggctgaggc aggagaatgg cgtgaacccg ggaggcggag cttgcagtga gcggagatcc   240
cgccactgca ctccagcctg ggcggcagag cgagactccg tctcaaaaaa aaaaaataat   300
aataat   306

<210> 8930
<211> 294
<212> DNA
<213> Homo sapiens

<400> 8930
gcgcggtggc tcacgcctgt aatcccagca ctttgggagg ctgaggcggg cggatcacga   60
ggtcaggaga tcgagaccat cctggctaac acggtgaaac cccatctcta ctaaaaatac   120
aaaaaattag ccgggcgagg tggcgggtgc ctgtagtccc agctactcgg gaggctgagg   180
caggagaatg gcgtgaaccc gggaagcgga gcttgcagtg agccgagatt gcgccattgc   240
actccagcct gggtgacagc gagactccgt ctcaaaaaaa aaaaaaaag aagt · 294

<210> 8931
<211> 127
<212> DNA
<213> Homo sapiens

<400> 8931
ccaggagcag tggctcaggc ctgtaatccc agcactttgg gaggccgagg caggtggatc   60
accaggtcag gagaccgaga ccatcctggc taacatggtg aaaccccatc tctactaaaa   120
atacaaa   127

<210> 8932
<211> 299
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (18)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (27)
<223> n equals a,t,g, or c

<400> 8932
taatcccagc actttggnag gccgagncgg gcggatcacg aggtcaggag atcgagacca   60
tcccggctaa aacggtgaaa ccccgtctct actaaaaata caaaaaatta gccgggcgta   120
gtggcgggcg cctgtagtcc cagctacttg ggaggctgag gcaggagaat ggcgtgaacc   180
cggaaggcgg agcttgcagt gagccgagat cccgccactg cactccagct tgggcgacag   240
agcgagactc cgtctcaaaa aaaaaaaaaa aaacaaaaca aacaaacaaa aaaaaacaa   299

<210> 8933
<211> 321
<212> DNA
<213> Homo sapiens

<400> 8933
gccgggtgcg gtggctcacg tcctgtaatc ccagcacttt gggaggccga ggcgggtgga   60
tcatgaggtc aggagatcga gaccatcctg gctaacaagg tgaaaccccg tctctactaa   120
aaatacaaaa aattagccgg gcgcggtggc gggcgcctgt agtcccagct actggggagg   180
ctgaggcagg agaatggcgt gaacccggga agcggagctt gcagtgagcc gagattgcgc   240
cactgcagtc cgcagtccgg cctgggcgac agagcgagac tccgtctcaa aaaaaaaaa   300
aaaaaaaag gaaaaaatac a   321

<210> 8934
<211> 316
<212> DNA
<213> Homo sapiens

<400> 8934
tcagccggcg cggtggctca cgcctgtaat cccagcactt tgggaggccg aggcgggcgg   60
atcacgaggt caggagatcg agaccatccc ggctaaaacg gtgaaacccc gtctctacta   120
aaaatacaaa aaattagccg ggcgtagtgg cgggcgcctg tggtcccagc tacttgggag   180
gctgaggcag gagaatggcg tgaacccggg aggcggagct tgcagtgagc cgagatcccg   240
ccactgcact ccagcctggg cgacagagcg agactccgtc tcaaaaaaaa ataaaataaa   300
ataaaaaaaa agaata   316

<210> 8935
<211> 130
<212> DNA
<213> Homo sapiens

<400> 8935
cctgtaatcc cagcactttg ggaggccgag gcgggcagat cacgaggtca ggagatcgag   60
accatcctgg ttaacatggt gaaaccccat ctctactaaa aatacaaaaa aaagttagcc   120
gggcgtggtg   130

<210> 8936
<211> 257
<212> DNA
<213> Homo sapiens

<400> 8936
tcacacctgt aatcccagca ctttgggagg ccgaggcggg tggatcacga ggtcaggaga   60
tcgagaccat cctggctaat acggtgaaag cccgtctcta ctaaaaatac aaaaaattag   120
ccgggcgtgg tggcgggcac ctgtggtccc agctacttcg ggaggctgag gcaggagaat   180
ggtgtgaacc cgggaggcag agcttgcagt gagccaagat cgcgccactg cattccagcc   240
tgggcgacag agcgaga   257

<210> 8937

```
<211> 102
<212> DNA
<213> Homo sapiens

<400> 8937
cccagcattt tgggaggccg aggcgggcag atcacgaggt caggagatcg agaatatctt    60
ggccaacatg gtgaaacccc gtctctacta aaaatacaaa aa                       102


<210> 8938
<211> 318
<212> DNA
<213> Homo sapiens

<400> 8938
gactcacggg cgggcgcggt ggctcacgcc tgtaatccca gcactttggg aggccgaggc    60
gggtggatca tgaggtcagg agatcgagac catcctggct aacaaggtga aaccccgtct   120
ctactaaaaa tacaaaaaat tagccaggcg cggtggcggg cgcctgtagt cccagctact   180
cgggaggctg aggcaggaga atggcgtgaa cccgggaagc ggagcttgca gtgagccgag   240
attgcgccac tgcagtccac agtccggcct gggtgacaga gcgagactcc gtctcaaaaa   300
aaaaaaaaaa aaaaaaaa                                                  318


<210> 8939
<211> 298
<212> DNA
<213> Homo sapiens

<400> 8939
gcggggctca cgcctgtaat cccagcactt tgggaggctg aggcgggcag atcacaaggt    60
caggagatcg agaccatcct ggctaacatg gtgaaacccc atctctacta aaaatacaaa   120
aaattagccg ggcgtggtgg cgggcccctg tagtcccagc tatttgggag gctgaggcag   180
gagaatggag tgaatccggg aggcagagct tgcagtgagc tgagatcgtg ccactgcatt   240
ccagcctagg cgacagagcc agactctgtc tcaaaaaaaa aaaaaaaaa aaaaaatt      298


<210> 8940
<211> 140
<212> DNA
<213> Homo sapiens

<400> 8940
ttctcacgcc tgtaatccca gcactttggg aggccgaggt gggtggatca cgaggtcagg    60
agatcgagac catcctggct aacatggtga accccgtct ctactaaaaa aacacaaaaa    120
attagctggg catggtggca                                                140


<210> 8941
<211> 306
<212> DNA
<213> Homo sapiens

<400> 8941
ccttccggct gggcacagtg gcttacgcct gtaatcccag cactttggga ggccgaggca    60
ggcggatcac gaggtcagga gatcgagacc atcctggcta acacggtgaa accccgtctc   120
tactaaaaat acaaaaaatt agctgggcgt ggtggcaggc gcctgtagtc ccagctactc   180
aggaggctga ggcaggagaa tggcatgaat ccgggaggca gagcttgccg tgagctgaga   240
tcgtgccact gcactccagc ctgggcgaga gagcaagact ccgtctcaaa aaaaaaaaa   300
aaagaa                                                               306
```

<210> 8942
<211> 223
<212> DNA
<213> Homo sapiens

<400> 8942
tggctcacgc ctgtaatccc agcactttgg gagtccgagg caggtggatc acgaggtcag   60
gagatcgaga ccatcctggc taacatggtg aaaccccgtc tttactcaaa atacaaaaaa   120
attagccagg catggtggcg ggcgcctgta gtcccagcta ctctggaggc tgaggcagga   180
gaatggtgtg aaccccgag gaggagcttg cagtgagccg aga   223

<210> 8943
<211> 143
<212> DNA
<213> Homo sapiens

<400> 8943
atcccagcac tttgggaggc tgaggcgggc ggatcacgag gtcaggagat ccagaccatc   60
ctggctaaca tggtgaaacc ccgtctctac taaaaataca aaaaattag ccaggcatgg   120
tggcgggtgc ctgtagtccc agc   143

<210> 8944
<211> 1575
<212> DNA
<213> Homo sapiens

<400> 8944
tgggccaggc gcggtggctc acgcctgtaa tcccagcact tagggaggct gaggcgggcg   60
gatcacgagg tcaggagatc gagaccatcc tggctaacat ggtgaaaccc catctctact   120
aaaaatacaa gaaaattagc cgggcgtggt ggcaggcgcc tgtagtccca gctaatcggg   180
aggctgaggc aggagaatgg cgtgaacctg cgaggtggag cttgcagtaa gctgagatta   240
cgccactgca ctccaacctg ggtgacagag tgagactctg tctcaaaaaa aaaaaaaaat   300
tccaacccct ttacactggg tcagtatatt gaaatatata aactttcact tgggaattat   360
tttttacctt tgcacccata tttgcctgaa gccgtttaag ttgtcgaagt cgcatgtatt   420
cagatttcac ttttcttttc cagtaagtga tacatttgga ggtagggga tttggtattt   480
ccatcttgct gtaatctaag agagacagag atgagaaata gcattttatt gcctggaaat   540
aaagcattcc tcaaatacaa aaaaaaaaa aagatcaatt atgctttcat tcccattaaa   600
tttactcata aaaacacaca tttaaagaac ccaaatgtgt gagttcaaca gaaagtttca   660
atttaaaaaa aagaggcagg ggctcacacc tgtaaaacca acactttagg aagccgaggt   720
gagagcacta cttgagccca gtgatttgag acaaccttgg caacatggt gaaacccat   780
ctctacagaa aatacaaaag ttagccagat gtgttggcca gtgcctgtag tcccagctac   840
tcaggaggct gatgtgggag gactgcttga gcccaggagg tcaaggctgc attgagccgt   900
gaccacgcca ctgcacttca gcctgagtga cagagtgaga ccttgtctca aaaaacaaaa   960
caaaacaaaa aaacaaaaaa caacaagaag tccaggcacg gtggctcacg cctgtaatcc   1020
cagcactttg ggaggccaag gtgggtggat cttctgaggt cagtagttca agactagcct   1080
ggccaacata gtgaaacccc gtctctacta aaatacaaa aaaaaaaaa aattagtcgg   1140
gcatggtggc ttgtgcctgt aatcccagtt atgtgggaag ctgagacacg agaatttctt   1200
gaacctggga ggtggaagtt gcagtaagcc gagatcgcac cactgcactc cagcctgggt   1260
gacacagtga gactccatct caaaaaagaa aaaaaaaa gtccgggcat ggtgattcat   1320
gcctgtaatc ccagcacttt gggaggccaa ggtgggtgga tcacgaggtc aggagttcaa   1380
gaccagcctg gccaagatgc tgaaaccccg tctctactaa aaatacaaaa attagctgga   1440
tgtggtggca cacgcctata atcccagcta ctcaggtggc tgaggcagga gaatggcttg   1500
aaaccgggag gtggaagttg cagtgaaccg agatcacatc actgcactcc agcctgggcg   1560
acagagcaag actcc   1575

<210> 8945
<211> 279
<212> DNA

```
<213> Homo sapiens

<400> 8945
cccccgcctg taatcccagc actttgggag gccaaggcgg gcggatcacg aggtcaggag        60
atcgagacca tcctggctaa cacggtgaaa ccccttctct actaaaaata caaaaaatca       120
gccgggcgtg gtggcgggcg cctgtagtcc cagctactca ggaggctgag gcgagagaat       180
ggcgtgaacc cgggaggcgg acttgcagtg agccgagatg gcgccactgc actccagcct       240
gggcaacaaa cagagcaaga ttccgtctca aaaaaaaaa                               279


<210> 8946
<211> 146
<212> DNA
<213> Homo sapiens

<400> 8946
ctggtgcggt ggctcacgcc tgtaatccca gcactttggg aggccgaggc gggtggatca        60
caaggtcagg agatcaagac catcctggct aacatggtga aacactgtct ctactaaaaa       120
tacaaaaaat tagccgggct aggttg                                            146


<210> 8947
<211> 271
<212> DNA
<213> Homo sapiens

<400> 8947
cactttggga ggctgaggcg gcggatcac gaggtcagga aatcgagtcc atcctggcta        60
acatggtgaa accccgtctc tactaaaaat acaaaaaatt agccgggcgt gctggtgggc       120
gtctgtagtc ccagctactc aggaggctga ggcaggagaa tggcgtgaac ccgggaggcg       180
gaggttgcag tgagctgaga tcgcgccaca gcaactccag cctgggcgac agagcgagac       240
tctgtctcaa aaaaaaaaa aaaaagaaa a                                        271


<210> 8948
<211> 296
<212> DNA
<213> Homo sapiens

<400> 8948
gcctgtaatc ccagcacttt gggaggctga ggcgggcgga tcacgaggtc aggagatcga        60
gatcattctg gctaacatgg tgaaaccccg tctctactaa aaatacaaaa aaaattagcc       120
gggcgtggta gcgggcgcct gtagtcccag ctactcggga ggctgaggca ggagaatggc       180
gtgaacccgg gaggcgcagc ttgcagtgag ccaagacagc gccactgcag cccagcctgg       240
gcgaaagagc aagactctgt ctcaaaaaaa aaaaaaaaa aaaaaaagga aggaaa           296


<210> 8949
<211> 270
<212> DNA
<213> Homo sapiens

<400> 8949
ggaggccgag gcgggtggat catgaggtca ggagatcgag accatcctgg ctaacaaggt        60
gaaaccccgt ctctactaaa aatacaaaaa attaaccggg cccggtggcg ggcgcctgta       120
gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg aacccaggag gcggagcttg       180
cagtgagccg agattgcgcc actgcagtcc gcagtctggc ctgggcgaca gagcgagact       240
ccgtctctaa aaaaaaaaa aaaaaaaga                                         270


<210> 8950
```

6610

<211> 243
<212> DNA
<213> Homo sapiens

<400> 8950
tcggccgggc gcggtggctc acgcctgtaa tcccagcact ttgggaggcc gaggcgggcg   60
gatcacgagg tcaggagatc gaccccatcc tggctaacgc ggtgaaaccc tgtctcttct   120
aaaaatacaa aaaattaccc gggtgtggta gcgggcgcct gtagtcccag cttctcggga   180
gtctgaggca ggaaaatggt gtgaacccgg gaggcggagc ttacagtgag ccgagatcgc   240
gcc   243

<210> 8951
<211> 100
<212> DNA
<213> Homo sapiens

<400> 8951
actttgggag gccgaggtgg gcagatcacg aggtcaggag atcgagacca tcctggctaa   60
cgtggtgaaa ccccgtctct actaaaaata cagaaacaaa   100

<210> 8952
<211> 281
<212> DNA
<213> Homo sapiens

<400> 8952
cacgcctgta atcccagcac tttgggaggc cgaggcgggt ggatcacgag gtcaggagat   60
cgagaccatc ctggctaaca cagtgaaacc ccgtatctac taaaaataca aaaaattagc   120
agggtgtggg ggggggcgcc tgtagtccca gctactcagg aggctgaggc aggagaatgg   180
cgtgaacccg ggaggtggag cttgcagtga gttgagattg cgccactgca ctccagcctg   240
ggcgacagag caagactcca tctcaaaaat aaataaataa a   281

<210> 8953
<211> 319
<212> DNA
<213> Homo sapiens

<400> 8953
aagaatagaa atcaggccgg gcgcggtggc tcacgcctgt aatcccagca ctttgggagg   60
ccgaggccgg cggatcacaa ggtcaggaga tcgagaccat cctggctaac atggtgaaac   120
cccgtctgta ctaaacatac aaaaagttag ccgggcatgg tggcgggcac ctgccgtccc   180
agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg   240
agccgagatg gcgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa   300
gaaaaagaat agaaatcta   319

<210> 8954
<211> 311
<212> DNA
<213> Homo sapiens

<400> 8954
acattggtta ggccgggcgc ggtgcctcac acctgtaatc ccagcacttt gggaggccga   60
ggcggcgga tcacgaggtc aggagatcga gaccatcctg ctaacacgg tgaaaccccg   120
tctctactaa aaatacaaaa aattagctgg gcatggtgac gggcgcttgt agccccagct   180
actcgggagg ctgaggcagg agaatggcgt gaacctggga ggcagagctt gcagtgagca   240
gagatcacgc cactgcactc cagcctgggc gacagagcga gactccatct caaaaaaaaa   300
gaagaaatac a   311

<210> 8955
<211> 300
<212> DNA
<213> Homo sapiens

<400> 8955
gcgcggtggc tcacgcctgt aatcccagca ctttgggagg ccgaggcggg tggatcacga   60
ggtcaggaga tcgagaccat cctggctaac acggtgaaac cccgtctcca ctaaaaatac   120
aaaaaattct ccgggcatgg tggcgggcgc ctgtagtccc agctactcca gaggctgagg   180
caggagaatg gcatgagccc aggaggcgga gcatgcagcg agccgagatg gaaccactgc   240
actccagcct gggtgacaga gcgagactcc gtctcaaaaa aaaaaaaaaa aaaaccacac   300

<210> 8956
<211> 277
<212> DNA
<213> Homo sapiens

<400> 8956
tgtaatccca gcactttggg aggccgaggc gggcggatca cgaggtcagg agatccagac   60
cagcctggct aacatggtga aaccccgtct ctactaaaaa tacaaataat tagcctggcg   120
tggtggtggg cacctgtagt cccagctact ggggaggtga ggcaggagaa tggcgtgaac   180
ccgggaggcg gagcttgcag tgagccgaga tcgcaccact gcactccagt ctgggcgaca   240
gagcgagaca ccgtcaaaaa aaaaaaaaaa aaaaaga   277

<210> 8957
<211> 17946
<212> DNA
<213> Homo sapiens

<400> 8957
aagatttttc aaggaatttt cttctctata atataattaa tgatctccta cttggacttc   60
tgtaaaagat tacagtaaat cgtgaagtct tatggaggtt tttgcgggag tgggtgggag   120
tagttgtcta ttactgcgtc tttgaatcta aaacagtacc aggatggggc cagagggcat   180
ctgggctctt cacggattat ataggcttga ccttgttagt actgcatgct gtcagagcct   240
catccaaaaa ccactgagat gttttttgtgc aggggaaata aaatttcaag cactggccta   300
tcatctaaag tgacttcttt tcttgaccca gtagttttct ggtgggttat aaagtgactt   360
tttttatgcc gagaactatt gaaacaattt attttgtgt acaaatatgt atgttttgaa   420
ttaactataa atattacgtt ataaaactt tttatttta ttttataaa acttgtgttt   480
ttaaattgga aattacactc attgaattgt tttacacatg cagacacaca gacacacaca   540
cacacacagc gaaacaaaat cctgagtgac agcaccctgt aactaactgt ggtgagattt   600
gattcaagtt gacagactct tctgttttag agagtaaatg cctttggatt ataacttaca   660
tgtctttctc aggaaaccag aatgggaggt gggtaacgaa atattctttt tggaaatgga   720
agaatcttag aataaaatat aaattcaaat tgccaatact ggcttgacgg taaagtggca   780
aatctcacca agacagagga ttgtgtgcat taccctgagc tgccactcat tcatcagggg   840
tttactgagc atttgttatg tgcctggccc tgtgctaggc cccggggatg gcaggataaa   900
tccaatgtgg cttctgcctg tgaggttctg taagtttgtg gggaagaggg atgtctcagc   960
agaagcttgt gagactgtag aaggggtctc agggacactg gaggtgcaaa aactagctct   1020
tcctggagtg ggagtaggac tagcttccct gaagcagctg ccctggtgct gggccttggg   1080
aacagatgga ggagccggtg tccccagcca ggactccgta aaggtgtggc attgcaggag   1140
ggcctggtct gttctgaaga gggtagggtg agactggaaa gccaaacggg ccagattgtg   1200
tggaggtttt atctcatggg cagcgtacca tttggcccag gagtgccatg cctgggggttg   1260
tatttttaaa aatatagtaa ccatctcccc ctgcactctc atctaccctg ctgcgtattc   1320
ttggtgatac gttccaagac ccccaatgaa tgcctgaaac cacagatggt actgaaccct   1380
gtatatacta cacacgaatt tcactttct tcacaatttc atgggtagaa gattcgttct   1440
taccgaagat cttaacatcc ttacctcttt tttttccctt attgagactt ttgccgtttc   1500
acttaaagga agcattttg gcttctcttt ggcatatctg aattgccagc atcactatcc   1560
ttacactttg ggggcccttc taataaataa agggttactt gaagacaagc actgtgatac   1620

6612

```
tgagacagtt gatctgataa ctgcgttggc tactaagtaa caggctggca gcatccacag 1680
catggacacg ctggacaaag ggatggctcg cagttttttgt aatggcaaaa atttcatcac 1740
actactcaga gcgacatgta gtttaaaact tacgacttgt ttatttctgg aattttccat 1800
ttagtatttt tgaaccggag ttgaccatgg ataactgaaa ttacagaaag tgaaacgtgg 1860
ctaacggggt gctagtccct cagtcatccc caagcccttc accaactctg ccctgtattt 1920
cagatcaccg aagtggcctt ggagtacaac aactgtcatg gggaccaggt ggtggagcgt 1980
ctccttcagc acctgcggcg ggtggatgct ccagtgctgg agtccctggc cctggaagtg 2040
ccggcacagc tgccagaccc gccaacgatc acagcgtccc cctgctgcaa cactgtggtg 2100
ctgccccagt ggcactcctt ctccaggacc cacaacgtct gtgaactctg tgtcaaccag 2160
acctccgggg gcatgaagcc gagctcggtc agcgtgccac agtgcagctt ttttgaaatg 2220
gcagcagctc tggattcttt ctacctcaag gagcagacct tttatcatgt ggcatcagac 2280
agcatagaat gcagcaattt tttaacttcc tatagcccct tcagctacta cactgcatgt 2340
tgcaggacca taagcagggg tgtgtcaggc ttcatcgact ctgaacaagg tgtctttgaa 2400
gcccctactg ttgcattttc ttcccttgag aagaaatgtg aggttgatgc cccaagctcc 2460
gttcctcaca ttgaggagaa caggtatctc tttccagaag tggacatgac tagcacaaac 2520
ttcacaggcc tgagctgcag aaccaacaag actctcaaca tctacctttt ggattcaaat 2580
ttgtttttggt tatatgcaga gagactgggt gctccgagct ccactcaggt gaaagaattt 2640
gcggcaattg ttgacgtgaa agaagaatct cattacatct tggatccaaa gcaagcactg 2700
atgaagctca ccctaggtac tgcaggcagt ttatttcccc aagcattgta cattttgctt 2760
gacttcatat gggtaaattt tattgatggc tctcattaca tttagttgtg gggtgatgtc 2820
accttcgtag ctcatttttaa gtctttagac caccatcagt cataatttttc aaagaagcta 2880
attttgtcta ttaaatggaa cagaaacttc ctcactctga attttggata agtttgtcat 2940
ttagcccatg gtgggggtaa gagtcccact ttctaaattg gcgatttctg tcacatgtct 3000
aaggtagaac cagctgcagg cagtgggggac ttggggacta gaacaggcag ggaggtggag 3060
agctattctg gtgggatgtc ctaggggctg atgaaagtga gccttgacag cagctttgtt 3120
ctaaaggagc ttaaagagaa agcagtggcc gggcgcagtg gctcacgcct gtaatcccag 3180
cactttggga ggccgaggcg ggtggatcac gaggtcagga gatcgagact atcctggcta 3240
atgtggtgaa acccgtctc tactaaaaat acaaaaaaaa aaaaattag ccgggcgcgt 3300
tggcgggcgc ctgtagtccc agctactcgg gaggctgagg caggagaatg tcgtgaacct 3360
gggaggcaga gcttgcagtg agcagagatc gcgccctgc actccagcct gggcgacaga 3420
gcaagactcc gtctccaaaa aaagagagca gtgaagaagg aagtagagcc gccttgcctc 3480
cctttttgtc tcataggctt aaatgtctaa ggatcaaggc caccagacct aatttgttct 3540
gctgctgttt cataatgtac tgagtaatat tgctgggacc tggggtacct acactgtaac 3600
aagtgtaaag tgcaaataaa taagtgtcag tcgcaaacca gcaaaaccca cttttttgagg 3660
agtaaggctc catgatgaga aagcacccag agcttgcccc tgggacttgg cagcaacatt 3720
gggctgaccc accctggcct gttcccagga atttgctgat gcccttgact acacacaatg 3780
aagtgagaat tcaaaagcca cgttagttca gcctcattgg aaacgggagg gagggtcagt 3840
gtatgccgaa tggagaaagg aggaatttgg tagggaagga aacctttcat ttcaagtttt 3900
aaagtatgaa ctcaacagta gactcagagc ttctacatat gagtcttttt agccatcctc 3960
tttcaaatct aggtgaagct tgtttcttac attagacaca tttgtgaaaa ggctttatgt 4020
aaatattgat ttttctatat caagttacat attataaatc caagagttcc tcactgtgta 4080
aaagaaccct gtgaccagtc acttttgaa gggcataaat ctgtcgatat tatagattac 4140
tcccaattca tgttatctaa agtcattttg atgtgttgag ctttcttaaa atgaaacaag 4200
catttttttt ttaaatggga aagagactcc agagaaatgg ggtcagtgtt cctacaagca 4260
tgtatttttg aggtagtctg tattagattt tcctgaattc cattcagtaa tgctcaagtg 4320
tttaatgacc tcataatgtg ttcactttga atttaagggt aattgaaaga agccttcttt 4380
agatttcttt ccatcttctg tatcttctct gaaatgttta gcctagctgt tctttgtcct 4440
gcagttagtg acagaattct tagggagctt gtaaaaaaca cctactgtgt gtcattgttg 4500
gtttagagac ttaactcata aatcagctgt ctctaggcta gtttcagaat ttaggcttta 4560
ttcagattag gaaataattc ttggtttcat gtttcaaaaa catagccaac taagtgtttc 4620
tcagatgctg atcatgaatt ctctttagta ttcacatgac attcttcact tcctcttcca 4680
ttctgcacgc tgcattgccc attgcacctc aaaatggagg gagttagaag aaagaaaaag 4740
aactgaaact ttagctgagt gcaatggtgg acgcctgtag tcccagctac tctggaggct 4800
gaggtaggag gatcgcttga gcccaggagt ttaaggctac agtgagctat gattgcagca 4860
ctgtactcca gcctgggcaa cagagtgaga ccctgtctct ttaaaaaaaa aaaaaaaagt 4920
gaaattcaaa ttagtattgt ttcagatgaa gcaaggact ctgaagatgg cagaatttgt 4980
ggtaaaactg ttggttcaaa tcaggttttt gattattatg ggttttatgt attttttccac 5040
tacatataat ttttttcttaa cctttaaaaa aagaaactta aagaacctta ataaaggaaa 5100
caaaaaactg tagctccttg tcctcaaatt aatgagcatt taaacacatt ccacactact 5160
gtagcttgtg cagttgtcac atttgtggtt aagcttaaag gtcttagtat tataggggtga 5220
aatttcttga aaagatggtg gcttgttgat gatttataca gtctcacttg gtgtctattt 5280
```

6613

```
gtggaccagt cctttaaaa aaagaatagt ctatgaatat tagagcatct aacattgcat    5340
agtgttttgt tatccacatt actgtctgct gagttaatac taccagagct aaacctgatg    5400
ccacccgggc agctttgttt ggggtttgc tgataggtga aatgttaaaa atgtgagcct     5460
atgaagtcat ttgagttttt aaaatgtgga gtttaaaagt aggccagcta ttctctttgt    5520
atctagagga gagttgatct cattttctct ttattttag agtcttttat tcaaaacttc     5580
agcgttctct atagtcctt gaaaaggcat ctcattggaa gtggctctgc ccagttcccg     5640
tctcagcatt taatcactga agtgacaact gataccttt gggaagtagt ccttcaaaaa     5700
caggtatgga gtcatgagag gcaaaagtta agccatctgt ccctcttaaa ataatttcca    5760
aactacagtt gttggggtga gcagctgttt ttgatgtata gaagagtaac cacgtgatgg     5820
cccaattatg gaccgtgaat gaattacatg tggttttaa atttcagaaa agtgctccag     5880
aaagcacagt attggaaaga cctaaagatg aaaattttca ctgtaatatt tgcataggta    5940
gcattttcg ggtgcttgct ggattctaag caatgaggaa agaaatgaag aagagcccat     6000
ttcccggtgc aagtaacatc tgtcttccct ttcccacagg acgttctcct gctctattac    6060
gctccgtggt gcggcttctg tccatccctc aatcacatct tcatccagct agctcggaac    6120
ctgcccatgg acacattcac tgtggcaagg taagcaggcc tcttctgcag cgctttgggc    6180
tgtatgccca tttcactct tatttgcagc ttagccatat ggtgtgtgag ggtctgccca    6240
ttttccatta acctttggta ggacttggct gaatttaatt gtcaggttga agccatgagc     6300
aaagcctctt tgaaactgaa cttttcctca tgaattctga gtgttccttc catgatgttg    6360
atgtttagcc ctgactagat tcgtaggtgg ctgagtgcag ttctgtgggg agagcactga    6420
cctggttgcc aggatggccc cgtggaatac catgggacag ttgccccagg caatgccagt    6480
gggtcctggg atcccaagca gatctctcca ccagccctgg tttatctcat ttgtgaaatt    6540
aaaaggaaag accaatagat atccacattc tggtattgtg attccatggg tactgtatgt    6600
gcgctttga gtaaacaaaa ttttaaaaa tatttttgg gaaagaagg ctcaaataca       6660
gagtctttag atggggtagt aagcagtttt gggtgaggaa aactgttcac atttaacccc    6720
ccacctcccc caaaaccta cagatagata agagttaaat ataaaaaat caaaacaaaa     6780
aataggattt gctgattcct ctgggagatg gaaactttcc aaagtggaag cagttggaaa    6840
aataaagaga gaaaaatgga cagattccac tagaaatacg tgcagtgaaa acagggaaag    6900
cagacaaaaa gggggaccat taatatattt tccagtgtct ctgtgtcacc tgttatatgc    6960
actgtaagta ataattagaa tcaaatctga ggagttacta tgttgggaga gttttttgata   7020
tacatattac ctgactgagt ccttgcgacg cttagtgaag gcactctagt taaaaaaaga    7080
aagtgctatt tgtgttgagg aggaaactga gacatagaaa gattcgacaa gttgcccaga    7140
gtttcaagct gcaaatgagg ggccaggatt aaatcaggca ttcatactcc agcctcccg      7200
gaaattaaaa tggtttagaa gatggctgag accgattcca ttctgaacaa aggatgtgag    7260
caggttttc ttttaagagg agagagtaaa taaacaagtg gggaaattat aacctaataa     7320
atgtaaatta aaacagtaac aaagtatcat ttaacatatt aaagtaatca gtggttttaa    7380
gtgacagaat cttgtgttga taaaataaaa tggaaactgc agtcagatgt atctaatgga    7440
atgagtacat tgccataact ctttggaaa gcattttggc aacatttaca agaaatcaac     7500
aaaaacagtt aacacatttt tgacccagtt aattttactt tggagaagta atggaatagg    7560
aattccgaag aagcatgagc tcatcattat agcattgttt acatccacca ggagatgaat    7620
gtttaagtaa attatggctg ggcatttaat ggaattttta tccttcaaca gtgctttca     7680
tacagttaat ggaaaagaac agagtatgaa atatatgaca actcttctta aaaatatgta    7740
aggatatagg cgaggtgcag tggctcatgc ctgtaatccc agcatgttgg gaggccgagg    7800
tgggcggatc acctgaggcc aggagttcga gaccagcctg gccaacatag tgaaaacctg    7860
tctctactaa aaataaaaaa ttagccaagt gtggcggcac gtgcctgtag tcccaactac    7920
tcaggaggct gaggcaggag aatcacttga atccagcagc cggaggttac agggagctga    7980
gattgcacca ctgcattcca gcctgggcga cagagcaaga ctgtgtctca gaaaaaaaaa   8040
agtaagcata tagaccaagc ctgcagcctg cataagaaag gggggcctta tttagcccaa    8100
tggaattctg agtggatttt gacaatgttt taattttata gtttgctttc tttgaagtaa    8160
gaatcaagtg agaaaaagca tttaattatg gaatatagtg ttcactccca cttgtttaga    8220
aaggaacact aatgtttag gtaggctggc acaggtgagg caggagtgct gttttgttag     8280
taaacttttg gtaaatggtt ttcatttggt tatgcctttt gttgctgttg ttgttttttg    8340
tttttgtttt ttttttgag atggagtctt gctctgttgc ccaggctgga gtgcagaggt     8400
gcaatctcag ctcactataa gctccgcctc ccgggttcac gccattctcc tgcctcagcc    8460
tcccgagtag ctgggactac aggcgccgc cattatgccc agctaatttt ttgtatttt       8520
agtagagacg ggtggcgttt caccgcgtta gccaggatgg tctcgatcac ctgacctcgt    8580
gatctgcctg cctcggcctc ctaaagtgct gggattacag acgtgagcca ccacgcccgg    8640
cgttgttgtt tttttgagac agggtctcac tctgttgccc aggctggaat gcagtggtgc    8700
aatcacagct cactgcagcc ccaacctccc aggttcaggt gattctccca ccttcccaag    8760
tagctgggac tacaggcatg tgccagaata cccggccaat tttttgtaga gacagggttt    8820
ccccatgttg cccaggctag tctcgaactc ctgggctcaa acagtccacc cacctcggcc    8880
tcccaaagtg ttggatttac aggcgtgagc ccctgtgctc agcctggttg tgccatttt     8940
```

6614

```
tgaaaagcaa atttcatcct tttggacaca tacatgacac ttaccgcacc ctcactcccc   9000
ccagttatgc tttctaaaaa cttctgtcaa ggtaaagatt gaaaacatgt tcatcttttg   9060
tgtgcactgt ttatgaatag tagctgaata gcccctccgc aaggaggatg cagccccttc   9120
cataaaggat gctgttgtgg ctccatgtct gcttagcccg agtgtgggcg cccagctgtg   9180
tgcccagctc tgtgccagct gcccgggca ggcctctaga gcagttgcgg ttagctccca   9240
cagtgattga gcacaggctg ggtgagttag tacagatgtc attttctgta ttagaaaatt   9300
aatgtcaaat ctgctaagaa aataggctgt ttttggtctc tatccagatt tacaacataa   9360
agagggtata attttccatc ttcagagggg cttgatgtat tttgctcaat gatttccttt   9420
cttttcccag agctattcag ggattaaaat acttggctag atcctgtcag gtgaggagtg   9480
aatgactcct caggtgtcag tgcggcattt tctgcaagtt catttttact ttcaggacat   9540
cacattgcca ctcagtggaa agcgtccacg tagtagaatg ttgtatgtct tggaagtatc   9600
agcgcccagc tcacacctgg tagtacattc atcgagaagg gactagccca atgtggggtg   9660
taaaaaatgc accaggttct tgaagttatc tgagaaggtt cttcaagtt ggtgtttctt   9720
gggctgatca tctgccattt ctgttctttc cctttaccag gattgacgtg tctcagaatg   9780
accttccttg ggaatttatg gtcgatcgtc ttcctactgt cttgttttt ccctgcaaca   9840
ggtaatgcca aatttttgtc actggtgggc agttgggatt cttttgtgga ggtctgaaaa   9900
tgaaatgggt ttaagatgta aatcattcat tatgttcaaa aaatgttccc ttaggaacca   9960
ggcgtggtgg ctcatgcctg taatcccagc actttgggag gctgaggcag gcagattgct  10020
tgagctcaag aggttgagac cagcctggcc gacatggtga aaccccatca gtacaaaaaa  10080
tacaaaaatt agccaggcat ggtgacatat gcttgtaatc ccagctactc tgaggctgag  10140
gcacgagaat ctcttgaacc tgggatgcgg aggttgcagt gagccaagat cacaccactg  10200
cactccaacc tgggtgacag agcgaggctc tgcctcaaaa aaaaaaaaa aaaaaagtg  10260
tccttaggga cataaagggg ttgtagtgtc aggatgttat gtgtggtatg gatctttaa   10320
aggttgtttt tcccagtcta tctcttaccc gagcttgaat gtggccgtga gaattcttag  10380
ctttcatggc ctgtatgaac atatggagga cgcagagact gacaggattc ttctgttgcc  10440
ctggctggag tgcagtggtg caatgtttgt gtggggcaaa acagcagaga atctgtggag  10500
ccctgcctgc cccaagcctt ccacttgctt gtctctcagt tggcctccca gcagctcctc  10560
atccctctcg tacagaggac agggtggctt tcttacccat ggcacgtcct tttctcggat  10620
tccaggaggc ctacaaaggg gttttctccc atgcgtgcag actgctgtga acgtccgcca  10680
tgggatggtc gcttgatttt ttcacacttg cctaatcagt attccaggtg cagttcttaa  10740
cggcaactac cccggaagcc cctgcaagca ggacattaac aaggggagc ggacttccag  10800
ttagtaaacg tagatgcaga tgttttagtg gaaaaagaaa ttaactcttg gtcctttaga  10860
gcctaataca ctggatgttt gctcccttt tatagattcc ctttggtttt tagaaagttg  10920
agtccttttg gggacccact cacatgactt tgacagtatc ttctctccag gggaaagtgt  10980
ctgcagcatc atttagggag ttccctggct cgcatgtatg acgtttgctg ttttaatttc  11040
ctgcctccct tttgcgattc agcttgtcat gtttctctag gagagtgttt ccttcatatc  11100
tattgaatca ttcccttggt ttttgctttg tatctcaaag aattttgcg ggagtacttc  11160
tgtggtagta gggtcttgtc acatcatgca ctaaaaacag aatgtgactc acccttttct  11220
actgctgact gagttgtgat gaggctttt ctttctaaga agtgtttaaa ttaccacata  11280
gtccaggaat cacggacagt aacactaaca ctttcatctg tgtgggccag gagttgggca  11340
tgtagtttaa tgacgtataa tttttgaatt ccaagcatag tttgaaaaaa tatgaaaatc  11400
ttagcaccca gcacatgcct tttaatgaag aagttctcag cagctggcag aaatgcatct  11460
gtgtagagag acacaggcgg aacaggtggc agggtggggc gtcatctgga ggcctgcgtc  11520
tgggctgagt gaccttcgtt cttaggctgc ctggtgtggg aaacgtgaag atgtgcgcat  11580
ttctccggcc ccatgctggg cacttgctgc aggcccttac ccttgtcgtt tctaaatatc  11640
gaacataaga agactgtcca cttctctttt aatgtaagga tgttggtaaa ccaaagcttt  11700
atggctttgg aatggaattt ttctcatttc ctaaaaataa atggtagaag taaagtatgc  11760
tcatcatgag ctggtcccaa gcgagtgttt ggtttagcca gaaggtaaat gggcaagcag  11820
cgtgagctga cagcttgcaa aagaggaaat gaaaaaggct gttggataac atgtagtaag  11880
acctttttca ttgtccacct gcttatgcta ttttagtga aagaatatg aaattgtata  11940
tttactgtga taaaatataa acttgtgcat gtgctaggtg gagatgttca cagagggaa   12000
aatgttgagg tgttaacatt gatgacttca gaggagtgag attgcaagtg atttgaaggt  12060
gctgcttgta tgttttaca tcccttgcaa attgtctaca aagagcatgt cttgatttat  12120
aaaaatcatg aaggaaaaaa atgcaagagc ctgtccttgg gaggaagagg aagggtggg   12180
gccttgaggg agacatagcc ttcctgtgca gaggcatctt ggagccactt gctccaccga  12240
gcaggtgctc ctccagccag cacttgcgtc agactctgtg tgacattgca aaatataggt  12300
gctctggcct ggccctgggc cagggtgatg aggggagat gggtgctcct gtccaccaag  12360
agactctgat gtgtcccagg ggaagaatca cagtttttta gaggtgtgcc ctgccactcc  12420
ctcagggtta gaggagagtt gcatagacat ggggacctct tcccaccata gtttcacatg  12480
actgctttcc tggaagtaga ctgttgacat tctctgtccc tgctactttc acaaagtgtg  12540
gcagtatttt agtgtgccca ttagggacat tgatggagag tgcaccaaga cctcttagtt  12600
```

6615

```
agcagatagc atgctcacgg atgtcactgt cctgtaaatg tctggaggta gacatcctga 12660
gggatcttgg cagctttttc tgggaagtaa ttcacgttta ctctgcctta caagaccagg 12720
cttgtgccgc agaacgtggg ggcaggtcca gcgtctggta ttcttccatg ggcccacttg 12780
acagggccac gatgtgtttt cagttgttgt ggggtttttt ggttttctgt ttttgagaca 12840
aggtctgact ctgttgccca ggctggagtg cagtggtgca attacggctc actgcagtct 12900
tgaactcctg gactcaagtg atcctcccac ctcaggctcc taagtagctg gatctacagg 12960
tgtgtgccac cttgcctggc taattttttt atcttacttt ttatacagat gaggccttac 13020
tatattgtcc aggctggtct caaactcctg gcctcaagcg atcctcccac ctcagcctcc 13080
caaagcactg ggattacagg cacacagcac cacacccagc tttgtcattt gaatggctgg 13140
gccccacttg aagaaagctt atatgttaag aaaactaagc tttaaaggag gggatggttg 13200
aatgtttacc ccaaaattat aaaacaattt acggccgggt ccagtggccc tgggcagcca 13260
ggctctggag tccctgctgt tgacttccat tctgttaaca cctgagggag acaaactcgg 13320
ctgccggccc acctcatacc taagtgcata aagctggtag ttttgatcaa ttgcagccag 13380
gctgtacagg cacaggtaaa tagatatgtg agagaaacat catcagacga ttaaatgaca 13440
agttctgaag aggaattttc tagatctcta gatcaggacc tggaacaaag ctgtagggaa 13500
aacccctttc tatgtcacct tccttcctta ttctgtgctc tcagggctgg gcagcctgaa 13560
ttcatagtcc tttggttggg ctgtttgcca gttatcaggt tgccaggtgt gagccagatg 13620
tacctgggga atgggggtac agtcacccccc agttgagaac ccctgcctta gagaatgtgt 13680
aataaatgct tgctgaagaa acagactggg tatctttcaa gttcttcctt tttctccggg 13740
cactgtcagt gggcacaaga gggacatagg tgggacactc ctgcctcccc tggacgctct 13800
tcctgacaca gccgctgggc atctccgagc acacagaggc cccatgccta cacactcctg 13860
gggccctgca tcactggctt taggcctggg cctaggagct cttgtctttc ttggagggtg 13920
tgggtgaagc tgagctctgg cttcaggaac agataagcca tcttaattac agaacgagca 13980
tatgggacag cctcagcttt gtagagaatt tcttgcccag gcaacatttt ccttactttc 14040
agtaagtaaa atccacggaa cgtcttttct tggtgagaag tagatggcct ggcctcaggt 14100
acagcctgct tttggactca ttgtgttggt gtgactcctg tctttgcttc ctttccctct 14160
ctctccagaa aggacctaag tgtgaaatac cccgaagacg tccccatcac ccttccaaac 14220
ctgttgaggt tcattttgca tcactcagac cctgcttcca gcccccagaa tgtggctaac 14280
tctcctacca aggagtgtct tcagagcgag gcagtcttac agcgggggca catctcccac 14340
ttggagagag agatccagaa actgagagca gaaataagca gcctccagcg agcacaagtg 14400
caggtggagt cccagctctc cagtgcccgc agagatgagc accggctgcg gcagcagcag 14460
cgggccctgg aagagcagca cagcctgctc cacgcacaca gtgagcagct gcaggccctc 14520
tatgagcaga agacacgtga gctgcaggag ctggcccgca agctgcagga gctggccgat 14580
gcctcagaaa acctccttac cgagaacacg tggctcaaga tcctggtggc gaccatggag 14640
aggaaactgg agggcaggga tggagctgaa agcctggcgg cccagagaga ggtccacccc 14700
aagcagcctg agccctcagc cacccccccag ctccctggca gctccctcc acctgccaat 14760
gtcagcgcca cactggtgtc tgaaaggaat aaggagaaca ggacagacta actttttaaa 14820
tgatatgaag aaatcagagg tgaaaattgt acattgggaa tatatttatg caaattttat 14880
tgaaatttat tgtaaataaa gattttctca gtggtctaga aaatcagctt gaatgtcatt 14940
cagcatttat tgaagaagga tgacatccct tccacttatt gcacaaactt ggtagctttg 15000
agacaaatac agtagcacag tccgtttgaa gatttgtcca aaaaattagt ccatatttta 15060
gtggctcagt gtcaagagtt ccctccctgt gcccccactg ttgcttctgc agtgatacga 15120
aggatgaatg cttaatttct tattagtcag aaaacttgaa tgcaacagtt gggcattcaa 15180
aaataatcca gagaggtcat aacctactta gccatttgag tgtggctctg gtgtctgcta 15240
aaaaaagtag ctattgaaaa aacagtgaga gctatgatgt ggttcactca ttctagaagc 15300
atttcatttt cctcccgaa aacccccca gtgcctcacc gagccccgga ccttcaccca 15360
acacggctgc cacgctcaaa tgggcctgat tcaaactccc aggtacgtcc ctggcaccag 15420
ggagtaggat aagaaaacct ccagaagtga aactgatgag gaagtgacat ttaatcactt 15480
caaaaccgaa acttcactgg caaggtcaaa accccaggcc aaggctgaca atcgagcgct 15540
ggtcagttcc aggggtcagg ctcggaacct gaaaatgcag atcctagctg ttgctgcgtc 15600
cctcaggtgt ggaggaagga aaaacagcct aggtgtatgt gctggctgtg gtgagagtcg 15660
aggtagaaag cctggaagtt ctgaaacgtg aggggatgga tcacacgccc cagccttttc 15720
tcactcacca aagcaaactt ttaccccctt cttccagtcg gcacctttgg aacttgttct 15780
ccctcctagg cctggtttca gtggcccCca ccacgtgtcc tgcccaccca gcctgcaggg 15840
cttctgctga catcacgcct accccaccac cacctcttct gaacttgcca caccatcagt 15900
agccagaggt gttgcctctc ctgcttccta aggtctccca agagcccagc tgaggtgttt 15960
cattaccacc ttctgctcag gtggcccagc cggctgtccc cttccaccc caagctccta 16020
cttaatgttt aaacccccaa tttaggtgta tgctgcttaa acgaacagct ccctacttct 16080
cccgcctcgg ggttccagaa cgtggattca ttcaacatgg tttttagaag aggcttgggt 16140
gaggccagag gaggtgcctt tagtctgagc aggaggccag agctctgagc tcagccatga 16200
agggccagtg ctctgtggtt aagccggggc tgaccttcca tctattacag ggatgggcag 16260
```

6616

```
gcacgagtca catttgaatc ataaataaaa ttagtatgtg cttgtggtgg gattaaaaat  16320
caaagtgagc tcactgaaat gtacataggg gaggccttgg agacaggctg tggagacact  16380
agctcaccag agagccacca gctcaccacc tgtgggagag tcaagtcctg aacttcaagt  16440
tcacctctgc cctgccccgg ctccctgccg caagcacagg ctggcaggaa gcagtctggt  16500
ggctcttagg ggaatgtgca cgtgagaaat gttccctggg tcctaagtgc ctttagagct  16560
gggtcagggg actggagacc cgctgaggaa agtgaagtca gaaccccata ggcggacggt  16620
catcagagag gaaaggaagc caagtgatgt gaagagggaa gaggaaaaga agaaaaaaga  16680
cagaacctca acagtcccct cccctccagt gcagaaaata ggaaacacca acacaaaaca  16740
tacaaccttt tctctttcct gggccaagtg ggtttcagac caaaagtagc caccacaggc  16800
tctatgagga ccaaagcaat ttcagcgaag ccttcactcg gggtggaggg ttggtggggg  16860
gcttggcgtg ctgaagaccc aagcggcaag aaactgctct gctacaagga cgctggcagc  16920
ctccaggacg cgtgccctga ctcgcccttc actggctccc aggcaggtcc ggtagcttcc  16980
ctgcagtaac tccactctca acagaactgc tatttaacaa gtgagtctat gcagaaagaa  17040
cggaggggtg cggggggtgt ggttttcttt ccacccatga ctaatgaagc agagatcacc  17100
caagcacccc aactggtcag cctcaagacc ccaaattggc atctcacttc cttgacatac  17160
acgcagatgg acacacatga gagcccctg ccgagtgtgg cgtgggcctt tacaagccta  17220
tgaccctcca gggtcttgac tcagcttgtc attagtacag ccagaatacc agtcccgtgt  17280
gcgctagatg atatttttaa aaatcagcaa aagggcttaa gcacgtgctt ccaggggcct  17340
atttacagtt cacaggtttg ttagttcacg cattacagta gtagctccat caaaaacagg  17400
ctcagctaga cattcaagta acaaaagcgc tacagggcca tgagccccag caaggtcagg  17460
cctgcccagt gcctgcaatg ggcagcctca cctggaggcc gaggggaagc ccaggacagc  17520
caggtccccg ggcatcagtg catgcgatga cgaagcccgc agaggccatg ccagcaagtg  17580
tcagcccttc ctctcagaca gcagcgcatc cgtatggttt tgccctccc agcgcctctt  17640
ggccggctgc aaacaggacc aggagccttg catcctggct cagccgtgga cttccgggcc  17700
gttgggagtc atcagcttgg cctttctctc cacgcacggt cccttggccg aatactgcac  17760
cagcaggaag ggttccttgg tctccccatc ccccacgatg ctctcctcgt cctctgactg  17820
gctgatgcgc tgcagccgca ggtagcacca gcagcccagg atcaaggccc ccagggccgc  17880
gatggcaatg aggatgacga tgactgtgac cacgcccgtg gtggggctgt ggtccataat  17940
agacat                                                              17946


<210> 8958
<211> 140
<212> DNA
<213> Homo sapiens

<400> 8958
ccacacctgt aacccagca ctttgggagg ccgaggcggg cggatcacaa agtcaggaga    60
tcgagaccat cctggctaac atggtgaaac cccatctcta ctaaaaatac aaaaagttag   120
ccgggcgtgg tggcaggcgc                                               140


<210> 8959
<211> 268
<212> DNA
<213> Homo sapiens

<400> 8959
tgtaatccca gcactttggg aggccgaggc aggggatca cgaggtcagg agatcgagac    60
catcctggct aacatggtga aacctcgtct ctactaaaaa tataaaaaat tagccgggcg   120
cggtggcagg cgcctgtagt cccagctacc caggaggctg aggcaggaga atggcatgaa   180
tctgggaggc ggagcttgca gtgagctgag atggggccac tgcactccag cctggggggac   240
agagcgagac cccgtctcaa taaataaaa                                     268


<210> 8960
<211> 301
<212> DNA
<213> Homo sapiens

<400> 8960
```

6617

```
gccgggcgcg gtggctcaag cctgtaatcc cagcactttg ggaggccgag acgggcggat        60
cacgaggtca ggagatcgag accatcctgg ctaacacggt gaaaccccgt ctctactaaa       120
aatacaaaaa ttagccgggc atggtggcgc gcgcctgtag tcccagctac acgggaggct       180
gaggcaggag aatggcgtga acccgggagg cggagcttgc agtgagtcga gatcgcgcca       240
ctgcactcca gcctgggtga cagagtgaaa ctccgtctca aaaaaaaaa aaaagagaa        300
t                                                                        301


<210> 8961
<211> 2548
<212> DNA
<213> Homo sapiens

<400> 8961
agcttgcaaa tggccgggcg cggtggctca cccctgtaat cccagcactt tgggaggcca        60
aggcgggcgg atcacgaggt caggagatcg agaccatcct ggctaacacg gtgaaacccc       120
gtctctacta aaaatacaaa aaattagctg gccatagtgg cggtgcctg tagtcccagc       180
tactcgggag gctgaggcag gagaatggcg tgaacccggg aggcggagct tgcagtgagc       240
cgagactgtg ccctgcact ccagcctggg cgacagagag agactccgtc tcaaaaaaaa       300
aaaaagcttg caaacgcaga aagaatgaa aaacaatgaa gatggtaaat atgtttataa       360
acctgaattg atgctggctg cataaagcaa taataataac atgaggttgg aaatgaaatt       420
aaaacgtata acaacaatga cgtaaaagcc aagacagtaa atggagtaaa agtgttccaa       480
ggttcttgca ctatcctgga agaagataaa ttcctattag acttaaataa gtcaagggtg       540
gatatagtaa tccctgtagt attactaaaa gaatagtgaa agggtgcata atttccaagc       600
cggtagagaa aaaatgtaga aaagttaaaa atatattatc aattcaaaag aaggcaagaa       660
aggagagaaa agggaatata gagcacataa agagtgctct ttcagcatac aaacatgctc       720
tggtatctct cactcttaaa attcttcctt ggcctattat ttcttttcat actccacctc       780
atttctctgc tttccttcat agcgaaactt ctagaaacag ttgcccccaa aatgctattt       840
ctgctccctc aatctgttca ctcccaccct attccaatat aactttcctc tctaccattc       900
cacaaagtct tctcacgtca aagccactga tgatgactga ggatgactga ggagacaaat       960
acaaagcatt tagggctggg cgcggtggct tacgcctgta atccagcact ttggaaggcc      1020
gaggcaggtg gatcatgagg tcaggagctc aagaccagcc tagccaacat ggtgaaactc      1080
cgtctctact aaaaatacaa aaattagccg ggcatggtgg catgcgcctg taatcccagc      1140
taccttggga ggctgaggcc agagaatagc ttgaacctgg gaggcagagg ttgcagtgag      1200
ccaagttcat gccactgcac tccagcctgg caacagagc aagactccgt ctcaaaaaaa      1260
aaaaagaaa gaacttaata aaattataga ttcagactga aatataccaa tagttacagt      1320
gaatataaat ggaaaagaaa ttctccagtt aaaatacaag aattagtaga caggtttaaa      1380
aaacaaacaa catgctattt accagagaca gaggtaaggc ataaggatac agtaaggcat      1440
aaggatacag gtaaggcata aggatatgga aaaaaggata cagtaaaagg actgagaaat      1500
ataaaattgg aagactctaa aagaaagctg atatagctgt attttatata tatatgtgtg      1560
tatatatacg tgtatatata tgtatatata tagtgtgtgt atatatatat ataaaataaa      1620
aggttggttt cctccttcct tttaaagtat ataattcaat ttttttttcag tatgttcaaa      1680
atattatgca gccatcacca ctatataatt cctagataaa atttacttta aggcaaaaat      1740
tcttttttttt tttttttttt tgagacccag tctcactctg ttgcctaggc tggagtgcag      1800
tgtcatgatc tcagctcact gcaacctctg cctcccaggt tcaagcaatt cccctgcctc      1860
aacctcccga gtacctggga ttacaggcgt gtaccaccat gcctggcta atttttgtag      1920
ttttagtaga gatggggttt ccccatgttg gccaggctag tctcaaactc ctgacctcag      1980
gcaatccgcc cacctctgcc tcccaaaggg ctggcattac agctgagagc cactgcgccc      2040
ggccaaaaag tcttaaaccc agaagataca acaatcctaa attgctaaat ctctaataac      2100
atagtctcaa agcacaagac gtaagaactg atagaactac aaagacaaat agaaaaagct      2160
acaagcctag tgggaaattt tcaacaagca aagagtatag aagatttgat ttcaaaattc      2220
attaaggtag ggccgggcat ggtggctgat gcctgtaatc tcagcacttt gggaggctga      2280
gacgggcaga tcatgaggtc aggaattcca gaccatcctg ctaacacag tgaaatgccg      2340
tctctactaa aaatacaaaa aattagctgg gcgtggtggc aggtgcctgt agtcccagct      2400
actcgggagg ctgaggcagg agaatggcat gaacccggga ggcggagctt gcagtcagcc      2460
gagattgcgc cactgcactc cagcctggga aacagagtga gactccatct caaaaaaaaa      2520
aaaaaaaaaa aaaaaaaaaa aaaaattc                                        2548


<210> 8962
<211> 6141
```

6618

<212> DNA
<213> Homo sapiens

<400> 8962
```
agtggctggg cgcagtggct cacgcctgta atcccagcac tttgggaggc cgaggcgggc    60
ggatcatgag gtcaggagat cgagaccatc ctggctaaca cggtgaaacc ccgtctctac   120
taaaaataca aaaaattag ctgggcgtgg tcgtgggcac ctgtagtccc agctactcgg   180
gaggctgagg caggagaatg gcgtgaacct gggaggtgag cttgcagtga gccgagatca   240
cgccactgca ctccagcctg ggcgacagag cgagactctg tctcaaaata aaaaacacca   300
gatgttaaat aaaatataat tcacaaattt tttaatgcat agatgaatgt acaaactaaa   360
ggaattttcc aggagctgga aacaaagagc acttcagcta gtgtaagcta acctgcagct   420
tagcctgcgg cagaaagaaa ctggcggtct tagtaattga ggcatttcaa tttcagcttg   480
cagagttgga ggcaatattc ctacataaaa gtagacccac aaagggctag ataagaaaag   540
ggataagata ctgaagcatc tctgtcatgg atggggctgt aggggtatac gggagtagga   600
gaggagaaat cttctcatga ccacaatccc aagtgggtaa taaggtttga gtttacacta   660
cctgaatatt gctgagaaat taatataaaa aaacgagcac aagcctatgg aaacctctgg   720
agcacttcac agaagcgaat acaaaaccgc ctcagggaca cgccaatcca ttctaaaatg   780
aattctcaga aaaataagcc ctgctaaagt tgacttcaca atccaaaact gccccactc    840
aacataacac acataataag atcagataaa gaccacaaaa taattacttt taaagaagaa   900
aaaaaatagg aatatctgga aagaagcaa ataaaagtt cagacattta aaaatgtatc   960
actgaaatta aagacagtcc aagagcagat ttagacccag ttggctgggt acggtggctc  1020
acacctataa tcccagcact ttggaaggct gaggtgggtg gatcacctga ggtcaggagt  1080
ttgagaccag cctgtccaac atggtgaaat cccttctcta ctaaaaatac aaaaacttag  1140
acgggcatag tggtgggcct ctgtaatccc agctactcag gaggctgagg caggagagtc  1200
acttgaaccc aggaggcaga ggttgcagtg agctgagatc atgccactgc actccagcct  1260
aggcaacaag agcgaaactg tctcaaaaaa gaaagaaaa gaaaagatt tagacccagt  1320
taaagagaaa taggccagac atagtggttc attcctgtaa tctaagcact ttaggatgcc  1380
tgggcaggag gatcaaggca atgtagtgag accatgtgtc tacaaaaaat aaaaaaatta  1440
gctgggtgtg atgctacata gtcccagcta ttcaggaggc tgaagtggga gagtcacctg  1500
agcccaggtt gaagcagcag tgagctgtga ctgtgccact gcactccagc ctgggcgaca  1560
gagtgagacc ctgtttcaaa aaaaaagta aaagaaaat tacctatcaa gaaatgataa  1620
ttaggctgac agtagacccc aacagcaaca atagaaaata atgaaaatgg ccaggtgtcg  1680
tggctcatgc ctgtaatccc agcactctgg gaggctgagg cgaacatcta aggtcaggac  1740
tttgagaccc agaatggcca acatgatgaa acccggtttc tactaaaaat acacaaaaaa  1800
ttagccaggt atggtggtgc atgcctatag tcccagctac ccaggaggct gaggcagggg  1860
aacccttga acctatgagg cagagatcac gccactgcac tccagtctgg gcgacagaga  1920
ctgtctccaa aaaaaaaaaa aaaaaaaaaa aactaaaga aaatatttt ctcccaaatg  1980
ctaaaataaa gtaagtaact atctggaatt ctacatccag ctatattatt atttaagagt  2040
aagaataggg gtggggtgac aaagagattt tgtcagtaat gcactatcaa aacctgaatc  2100
cagaaaagga gtggtggggg ttaaaaaaaa gaaaaaaaaa aaaaaacaa gcagtgatga  2160
gcaaagaaaa tggtattcag caaattgagg ccaggcgccg tggctcacgc ctgtaatccc  2220
agcactttgg gaggccaagg cgggtggatc atgaggtccg gagatcgaga ccatcctggc  2280
taacacagtg aaaccccgtc tctactaaaa atacaaaaaa atttagccgg gcatggtggc  2340
gggcgcctgt agtcccagct acttgggagg ctgaggcagg agaatggcgt gaacccggga  2400
ggcagagctt gcagcgagcc aagagtgcac cactgcactc cagcctgggt gacagagcga  2460
gactccatct caaaaaaaaa aaaaaatgg tatttagcaa attgaaataa gccttgactg  2520
taaaatagta acacctaaac tatctttaag gatatgaaaa caaggtagaa ctaaaatata  2580
tttattagtc atgttcttgg atagaaatac tcatttgtgg ctgaacatgg tggctcatgc  2640
ctgtaatcct agcactttgg gaggctgatg caagaggatc actcaagccc aggagttcac  2700
aaccagcctg ggcaacatag caagaccctg ttgctttttg ttttgaggtg tttttttttt  2760
taatttaaaa gaaaaaaat taaatacttt ttttaaagaa atactcattt gtcataggga  2820
tgggaattat ctttaggttg acttataaat ctaacatgat gctgataaaa atactgtaag  2880
ggttgctctt tttggggaga accccaggca tggtggtgta tacccatagt cccagctatt  2940
tgggaggctg aggtgacagc atcacctgag ctgagactgc agtgagctgt gatcaagccg  3000
ctgcacttca gccttggcaa tgaagtgaga ccctgtctca aaaataaaat aaattaaact  3060
aaattaaaat taaataaatt ttaaaaataa aataaaataa gatgcttacc cttctagttg  3120
ttgtgaagat taaatgagtt attcataaag tgcttacaac attgcctggc acataataag  3180
tactcaactg aattctagtt tcggttagtt tctcctgtta taactgtatg agtctgtttc  3240
agggctattc tgatccaatc atctgctatc tatctattca tacgtcagaa ccactcatgg  3300
caccatttta caatgttaag agaagtctat gtgcaagctc ctaaaaacca catttctttc  3360
cttctttctt atcttagaga caggagtctt gctctgttcc ccaggctgga agtaggcagt  3420
```

                                    6619

```
tgcctgatca tggctcactg tggccttgaa ttcctgcaca agtgatcctc ctatcttggc   3480
ctcccaaagt gctgggaata caagtctgag ccaccaggct gagcccataa aaaacatttt   3540
tctggccaga tgcagtgtct catgcttgta attccaacac tttgggaggc tgaggcgggc   3600
agatcacctg aggtcacaag ttcgagacca gcctggccaa catggtgaaa ctctgtctct   3660
aacaaaaata caaaaattag ccaggtgtgg tggtgggcac ctgtaatccc agctactcgg   3720
gaggctgagg caggagaatt gcttgaaccc aggaggcaga ggttgcagtg agccaagata   3780
gcaccattgc actcccgcct gggcaacaag agtgaaactc cgtctcagaa aaaaacaaac   3840
aaacattttt gttagttctt tcctgttgat tctgtcagat aaactttaga ataattttca   3900
gatcctccat ctcttaccta ttcagttgaa ttatattaca ttaataaact gaaaagaaat   3960
gacatctata tatctaatag gtcattccat cttagaaaat ggaatggtct cataattatt   4020
tcaggctttt aaattatctc atagtttact gcatgtctca ttacctgtta aaggcatttt   4080
aaaatacttt atgttttgt taataaagtg agtggtggta tattttccct tattacattt   4140
tctgattttt gctggcatta taaaactatt gggtttata cacttgcttt acagctagtc   4200
aacaagctaa acttttaatt ctaaaaagtg tctcttgggt tttcttgtgt aaaataaata   4260
gctatatctc ctatatacaa tgaaaaattg tataacagtc tcaacaaggg atatcaacgg   4320
aaaatctcaa ggggatttat tttttaaga cagagtgcag tggcactaac atagatcact   4380
gcagactcga aatctgagct taagggatac ttccactttg gcttcactag atggatgcca   4440
cacatacctg gctaattttt tttttaatgt aaaaaacatg ggtggggtct tgctatgttg   4500
ccctggctgg tctcaaactc ctggcctcaa gcgatctcct gcctcggcct cccaaagtgc   4560
tgtaatccca gcactttggg agacacctca cctggcctca aaagggattt taaattgcaa   4620
aacatgcaga aatatttaat ctgtctggga ataacccct gactcctggc ctcccagtct   4680
cccagagacc attacacaga agcaggtcca tgttttacta aaggaagagt gtcagcaata   4740
aactgttgag tgaaaagacc aagctatagg acagcatgca cagaatgagc ccactttgtt   4800
aaaaaatata tttcatatat acagcacata ctaaatatag catggatata gaaaagtatc   4860
tgggagatta ggtatcaaat tattaacggt gcttgtctgt ggggaataca agtaggagca   4920
aacttttact ttttattttg cttgctatct acccccaaat agattactaa ttctgaagca   4980
ttgctttaag ctagtaatat ctttttcag tttcttttta aacacaccta aattcagagg   5040
acagaggtag acaattttg cacatccatc ttgaacttaa tcattacaca gaaaaatagc   5100
tggaaaacta ttatgttttg aatatatgtt gaatacatac gatttttact gcagacatga   5160
tacatagccc atagtgccca gagctgaacc tctggttgag agaagttgcc aaggagcggg   5220
aaaaatgtct tgaaagatct aaaacaaaaa aaagtacaaa gatgttaatc cagaacagtt   5280
aggccagtgc tcaggatat aataatttgt actatataat taatataata atgtatataa   5340
ttttcacagc cgggcatggt ggctcatgcc tgtaatccca gcactttggg aggccaaggt   5400
aggtggattg cttgagctta ggaattcggg accagcctag gcaacaaggt gagcccccgt   5460
ctctacaaaa aaaaaaaaa aaaaaaaaa aaaattagct gggcctggtg gcacacgcct   5520
gtagggccaa gtgggaggat cctcaagtgg gaggatcact tgagcctggg aagtcaaggc   5580
tgcattgaga tgtgatcccg ccactgcatt ccagctccag cctgggcaac agagagagac   5640
cctgactcaa aaggttgaaa aaaaagaat tttcaaattt taaacatttt ccccacaggg   5700
tcaacttctc cctgtgaccg agcatacaat gaagctatta tttaagaaat tgcattctgt   5760
attaaaccct ttattatgat cagtatctca ttgcatcctc aatcttgcac actgtcagcc   5820
tcattttaca gacaaggaaa gctgaccttc tagaaatgac tttcccaata tcagagaaat   5880
aggatttgaa cataaggcta actgactcta acacgttatc actgtatcac tgagtacagc   5940
ctttaagaaa agctcaacac tgggccaggc acggtggctc acgcctgtaa tcccagcact   6000
ttaggaggcc gaggcgggca gatcacgagg tcaggagatc gagaccatcc tggctaacat   6060
ggtgaaaccc cgtctccact aaaaatacaa aaaattagcc gggcatggtg gcgggtgcct   6120
gtagtcccag ctactcggga g                                            6141
```

```
<210> 8963
<211> 130
<212> DNA
<213> Homo sapiens

<400> 8963
ccgggagcag tggctcacgc ctgtaatccc agcattttgg gaggccgagg cgggtggatc    60
acaagctcag gagattgaga ccaccctggc caacatggtg aaaccccgtc tctactaaaa   120
atacaaaaaa                                                          130


<210> 8964
<211> 272
```

<212> DNA
<213> Homo sapiens

<400> 8964
cgggcacagt ggctcacgcc tataatccca gcactttggg aggccgaggt gggtggatca   60
caaggtcagg agatcaagac catcctggct aagaaggtga aaccctgtct ctactaaaaa   120
tacaaaaaat tagccgggcg tggtggcggg cacctgtggt cccaggtact caggaggctg   180
aggcaggaga atggcgtgaa ctcaggaggt ggagcttgca gcgagccaag atggtgccac   240
tgcactccag cctgggcgac agagcaagac tc   272

<210> 8965
<211> 205
<212> DNA
<213> Homo sapiens

<400> 8965
tcccagcact ttgggaggcc aaggtgggcg gatcacgagg tcaggagatc gagaccatcc   60
tggctaacac ggtgaaaccc cgtctctact aaaaatacaa aaattagcca ggtgtggtgg   120
cgggcatctg tagtcccagc tactctggag gctgaggcgg gagaatggcg tgaaccccgg   180
aggcagagct tgcagtgagc cgaga   205

<210> 8966
<211> 167
<212> DNA
<213> Homo sapiens

<400> 8966
gggccgggcg cagtgactca cgcctgtaat cccagcactt tgggaggccg aggcgggtgg   60
atcacgaggt cacgagatcg agaccatcct ggctaacaca gtgaaacccc gtctgtacta   120
aaaacacaaa aaattagccg ggcatgttgg caggtgcctg tagtccc   167

<210> 8967
<211> 299
<212> DNA
<213> Homo sapiens

<400> 8967
ggtgcattgg ctcacgcctg taatcccagc actttgggag gccgaggccg gcggatcacg   60
aggtcaggag atcaagacca tcctggctaa cacggtgaaa ctccgtctct actaaaaata   120
caaaaaatta gccaggcatg gtggtgggca cctgtagtcc cagctactgg ggaggctgag   180
gcaagagaat ggcgtgaacc caggggggcag agcttgcagt gagccgagat ctcgccactg   240
cactccagcc tgggcgacag agtgagatta catctaaaaa aaaaaaaaa aaaaaaaaa   299

<210> 8968
<211> 288
<212> DNA
<213> Homo sapiens

<400> 8968
tcacgcctgt aatcccagca ctttgggagg ccgaggcagg tggatcacaa ggttaggaga   60
tagagaccat cctggctaac acggtgaaac cccgtctcta ccaaaaatac aaaaaattag   120
ccgggcgtgg tggcgggcgc ctgtagtccc agctactccg gaggctgagg caggagaatg   180
gcgtgaaccc aggaggtgga gcttgcagtg agccgagatc gcgccactgc acgccagcct   240
gggtgatgac agagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaa   288

<210> 8969

6621

<211> 282
<212> DNA
<213> Homo sapiens

<400> 8969
cctgtaatcc cagcacttta ggaggacgag gtgggcggat cacaaggtca ggagatcgag   60
accatcctgg ctaacatggt gaaaccccgt ctctactaaa aatacaaaaa attagccggg   120
cgtggtggcg ggcgcctgta gccccagcta ctccggaggc tgaggcagaa gaatggcttg   180
aaccgggagg cggagcttgc agtgagccaa gatcgcacca ctgcactcca gcctgggtga   240
cagagcgaga ctccgcctca aaaaaaaaaa aaaaaaaaa aa   282

<210> 8970
<211> 275
<212> DNA
<213> Homo sapiens

<400> 8970
ccctttggga ggccgaggca ggcggatcat gaggtcagga gatcgagacc atcctggcta   60
acacggtgaa accccgtctc tactaaaaat acaaaaaaaa atgccaggtg tggtggtggg   120
cgcctgtagt cccagctact gggaggctg aggcaggaga atggcgtgaa ccaggaaggc   180
ggagcttgct gtgagccgac ctcgcaccac tgcactccag cctgggcgac agagtgagac   240
tccgtctcaa aaaaaaaaa aaaaaaaaa aaaaa   275

<210> 8971
<211> 133
<212> DNA
<213> Homo sapiens

<400> 8971
tgccgggcgc ggtgactcac gcctgtaatc ccagcacttt gggaggctga ggcgggcgga   60
tcatgaggtc aggagatcga gaccatcctg gctaacacgg tgaaaccccg tctctactaa   120
aaatacaaaa att   133

<210> 8972
<211> 181
<212> DNA
<213> Homo sapiens

<400> 8972
aaagcaagcc cgggcgcggt ggctcacgcc tgtaatccca gcactttggg aggccgaggc   60
gggcggatca cgaggtcagg agatcgagac catcctggct aacacggtga aaccctgtct   120
ctactaaaaa tacataaaaa ttagccgggc aaggtggcag gtgcctgtag tcccagctac   180
t   181

<210> 8973
<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (98)
<223> n equals a,t,g, or c

<400> 8973
cggtggctca cgcctgtaat cccagcactt ggggaggccg aggcgggcgg atcacgaggt   60
caggagatcg agaccatcct ggctaacacg gtgaaacncc gtctctacta aaaatataaa   120

6622

```
aaattagcca ggcgtggtgg tgggcgcctg tagtcccagc tactcaggag gctgaggcag    180
gagaatggcg tgaacccggg aggcggagct tgcagtgagc cgagatcgtg ccactgcact    240
ccagcctggg cgacagagtg agactccgtc tcaaaaaaaa aaaaaaaaaa gttattcttc    300
g                                                                    301


<210> 8974
<211> 301
<212> DNA
<213> Homo sapiens

<400> 8974
ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg gaggccgaga cgggcagatc    60
acgaggtcag gagatcgaga ccatcctggc taacacggtg aaaccccgtc tctactaaaa    120
atacaaaaat tagccgggca tggtggcatg cacctgtagc cccagctaca cgggaggctg    180
aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagtcgag atcgcgccac    240
tgcactccag cctgggcgac agagcgaaac tccgtctcaa aaaaaaaaa aaagaataag    300
a                                                                    301


<210> 8975
<211> 111
<212> DNA
<213> Homo sapiens

<400> 8975
taatcccagc actttgggag gccaaggtgg gtggatcacg aagtcaggag atcaagacca    60
tcctggctaa cgtggtgaaa ccccgtctct actaaaaata caaaaacaaa a           111


<210> 8976
<211> 182
<212> DNA
<213> Homo sapiens

<400> 8976
ctgggcatgg tggctcacgc ctgtaatccc agcactttgg gaggccaagg cgggcggatc    60
acgaggtcag gagatcgaga ccatcctggc taacatggtg aaaccccgtc tctactaaaa    120
attcaaaaaa ttagccaggc gcggtggcgg gcacctgtag tcccagctac tcagtaggct    180
ga                                                                   182


<210> 8977
<211> 300
<212> DNA
<213> Homo sapiens

<400> 8977
ggcgcggtgg ctcacgcctg taatcccagc actttgggag gccgaggcgg gcggatcaca    60
aggtcaggag attgagacca tcctggctaa cacggtgaaa tcccgtctta ctaaaaatac    120
aaaaaaaaat tagccaggca tggtggcggg cgcctgtagt cccagctact ccggaggctg    180
aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagcagag atcgcgccac    240
tgcactacag cctgggcgac agagcaagac tccgtctcaa aaataaataa ataaataaaa    300


<210> 8978
<211> 611
<212> DNA
<213> Homo sapiens

<400> 8978
```

6623

```
cagttgttgg ccgggcgctg tggctcacgc ctgtaatccc agcactttgg gaggctgagg    60
cgggcggatc acaaggtcag gagatcgaga ccatcctggc taacacagtg aaaccccgtc   120
tctactaaaa atacaaaaat tagccgggcg tggtggcggg tgcctctagt cccagctgct   180
ggggaggctg aggcaggaga atggcatgaa cccgggaggc agagcttgca gtgagccgag   240
atcccaccac tgcactccag tctgggtgac agagcgagac tccgtctcaa aaaaaaaaa   300
aaaatttcag ttgtgggctg ggcgcggcag ctcacgcctg taatcccagc actttgggag   360
gctgaggcgg gaggatcacg aggtcaagag atggagacca tcctggctaa cacggtgaaa   420
ccctgtcttt actaaaagta caaaaaaaa aattagccgg gtgtagtagc gggcacctgt    480
agtcccagct actcgggagg ccgaggcagg agaatgacgt gaacccggga ggcggagctt   540
gcagtgagct gagatcccgc cactgcactc cagcctgggc gacagaacaa gactccgtct   600
caaaaaaaaa a                                                         611


<210> 8979
<211> 291
<212> DNA
<213> Homo sapiens

<400> 8979
ccacgcctgt aatcccagca ctttgggagg ccgaggcggg cggatcacga ggtcaggaga    60
tcgagaccat cccggctaaa acggtgaaac cctgtctcta ctaaaaatac aaaaaattag   120
ccgggcgtag tggcgggcgc ctgtagtccc agctacttgg gaggctgagt caggagaatg   180
gcgtgaaccc gggaggccga gcttgcagtg agccgagata gcaccactgc actccagcct   240
gggcaataga gcgagactcc atctcaaaaa acaaacaaac aaacaaacat a             291


<210> 8980
<211> 308
<212> DNA
<213> Homo sapiens

<400> 8980
ggtggctcac gcttgtaatc ccagcacttt ggaaggccga ggcgggcgga tcacgaggtc    60
aggagatcga gaccatcctg gttaacacgg tgaaaccccg tctttactaa aaatacaaaa   120
aaaattagcc gggcgtgatg gtgggcgcct gtagtcccag ctactcggga ggttgaggca   180
ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagattgc gccactgcac   240
tcccgcttgg gccacagagc gagactccgt ttcaaaaaaa aaaaaaaaaa aaaaaaaag   300
gaacaaga                                                             308


<210> 8981
<211> 197
<212> DNA
<213> Homo sapiens

<400> 8981
accacggtga aaccccatct ctactaaaaa tacaaaaaat tagccgggtg cagtggcaag    60
cgcctgtagt cccagctact caggaggctg aggcaggaga atggcgtgaa cccgggaggt   120
ggagcttgca gtgagctgag attgcaccac tgcactccag cctgggcgac acagcaagac   180
tctgtctcaa aaaaaa                                                    197


<210> 8982
<211> 114
<212> DNA
<213> Homo sapiens

<400> 8982
cagcactttg ggaggccgag gtgggtggat cacgaggtca ggagatcgag accatcctgg    60
ccaatatggt gaaaccccat ctctactaaa aatacaaaaa ttagctgggc atgg          114
```

```
<210> 8983
<211> 297
<212> DNA
<213> Homo sapiens

<400> 8983
ctaggcgcgg tagcacgcct gtaatcccat cactttggga ggccgaggcg ggcggatcac      60
aaggtcagga gatcgagacc atcctggcta acacggtgaa accccgtctc tactaaaaat     120
acaaaaaaat tatcagggtg tggtggtggg tgcctgttgt cccagctact tggcaggctg     180
aggcaggaga atggagtgaa cccgggaggc ggagcttgca gtgagctgag attgtgccac     240
tgcactccag cctgggcaac agagcgagac tctgtctcaa aaaaaaaaaa aaagaaa       297


<210> 8984
<211> 307
<212> DNA
<213> Homo sapiens

<400> 8984
tttaaaaagt ctggccggga gcggtggctc acgcctgtaa tcccagcact ttgggaggcc      60
gaggcgggcg gatcacgagg tcaggagatc gagaccatcc cggctaaaac ggtgaaaccc     120
cgtctctact aaaaatacaa aaaaaaatt agccgggcgt ggtggcgggc gcctgtagtc     180
ccagctactt gggaggctga ggcaggagaa tggcgtgaac ccgggaggtg gagcttgcag     240
tgagctgaga tcgcgccact gcaccccagc ctgggcaaca gagcgagact ccgtctcaaa     300
acaaaaa                                                            307


<210> 8985
<211> 226
<212> DNA
<213> Homo sapiens

<400> 8985
gggtgcagtg gctcacgcct gtaatctcag cactatggga ggccgagacg ggtggatcat      60
gaggtcagga gatcgagacc atcctggcta acacggtgaa accccgtctc tactaaaaat     120
acaaaaaaat tagctgggcg tgatggcagg tgcctgtagt cccagctact cgggaggctg     180
aggcaggaga atggcatgaa actgggaggc ggagcttgca gtgagc                  226


<210> 8986
<211> 280
<212> DNA
<213> Homo sapiens

<400> 8986
cccagcactt tgggaggccg aggcgggcgg atcacgaggt caggagatcg aggccatccc      60
ggctaaaacg gtgaaacccc gtctctacta aaaatacaaa aaaattagcc gggcgtagtg     120
gcgggcgcct gtagtcccag ctacttggga ggctgaggca ggagaatggc gtgaacctgg     180
gaggcggagc ttgcagtgag ccgagatccc gccactgcac tccagcctgg cgacagagc     240
gagactccgt ctcaaaaaa aaaaaaaaaa aaaaaatagg                          280


<210> 8987
<211> 305
<212> DNA
<213> Homo sapiens

<400> 8987
gtggggccag gcgcggtggc tcatgcctgt aatcccagca ctttgggagg ccaaggcggg      60
tggatcacga ggtcaggaga tccagaccat cctggctaac acggtgaaac cccgtctcta     120
```

6625

```
atttatatgt caacttgtgt tatatgcctg ggtatactta tggactttaa gttgttttct   2340
tctagttttct agttaattat ttttcttttt tctttcagaa caggacgcag gccttgatgc   2400
cctttcctct atcataagtc gccaaaaaca aatggggcag gaaattggga atgaattgga   2460
tgaacaaaat ggtaagaata agtctgggat tgaccagatt tgccgttgac ataaatacta   2520
aaggcttgag catttgttga atgagtttaa gattatacaa catgtaaagt ggtttaatgt   2580
caatgattgt tacagtttaa cgcattggag tgggggttgt ggcagattta gatgatagtt   2640
gttaaatact atgcaaagaa atttggtgaa aaattttcca gttctcagta gctgctttta   2700
acaatactgt gttttatgat ccattcatcc caagagcttt tcttctatgt ggcagtgata   2760
tgaaattgct cagcactttg tacactgagg ctgtgtgggc ctcctgtcat ccccacaccc   2820
ggtggagttt gctcttcttc gatcctatgt accaggcttc agggcaaaaa agggtttgaa   2880
gatctttgtt cagggtttga tgtgacaagt ctggttggaa aaagatgaat ttgcaaactg   2940
caagcagggt ggattgggga gtgtttaaga cgtgtaggca tctgcaaggc tcttggcttg   3000
aggagggcct ggatgggttg taggggcaga aaggggggaag aaatacgggg gcacgggatt   3060
gccagtgatt ttacgttaag gatgaagttg ggaaacttga gagcagacac tggtttttgg   3120
gtgagatggt aagtccagtt tgcatgtgtc taattagaga tgccggcggg agatgtccag   3180
ttgacagtgg gagacagggt accagagctc agggagaggg cggagccaaa gagaagagat   3240
gggagcagct gcagtgtaga ggtgacgtgt gacagcgtgg agtcgttgag tggcagtgaa   3300
gctggcattt atggaaagcc cccactatgt gctaagccct ttcatctatg tcatttcatt   3360
tcatctccac acaacatcat gaaggcggca ccctcctcgt gtgagaggca aaactcagag   3420
tggctgcagg gcccCCtgag accacatcgc ttatgagtga cagagctaaa ctccagctca   3480
ggtcttctga ttctaacgtg actgcttttg ctgctaaact ggcttcctct ctaaagaaga   3540
caaagtagga agagaaaaag aaaatgtaaa gtattctatc taaggtttca gcttttagta   3600
ataacacgat ggaatggctt tcaagaaaag ttatcaggtg ggtgcggtgg ctcacacctg   3660
taattccaac actttgggag gctgaggcag gcggattaca aggtcaggag accagcctgg   3720
ccaacatgat gagacctcat ctctactaaa aatacaaaaa attagctggg cgtggtggcc   3780
cacacctgta gtcacagcta ctcgggaggc tgaggcagga gaattgctag aacccaggag   3840
gcggaggttg tggtgagccg agattgtacc attgcactcc agcctgggcg acagagcaag   3900
tctcc                                                                3905


<210> 8990
<211> 130
<212> DNA
<213> Homo sapiens

<400> 8990
ggccgggcgc ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggctgacggt     60
tcacaaggtc aggagttcga gaccatcctg gccaatatgg tgaaaccccg tctctactaa    120
aaatacaaaa                                                           130


<210> 8991
<211> 275
<212> DNA
<213> Homo sapiens

<400> 8991
gcctgtaatc ccagcacttt gggaggctga ggcgggtgga tcacgaggtc aggagatcga     60
gatcatcctg gctaacatgg tgaaaccccg tctctactaa aaatacaaaa aattagctgg    120
gcatggtggc gggcacctgt agtcccagct actcgggagg ctgaggcagg agaatggtgt    180
gaagctggga ggcggagctt gcagtgagcc cagattgtgc cactgcactc cagcctgggt    240
gacagagcaa gactctgact caaaaaaaaa aaaaa                              275


<210> 8992
<211> 264
<212> DNA
<213> Homo sapiens

<400> 8992
atcccagcac tttgggaggc cgaggtgggc ggatcacgag gtcaggagat cgagaccatc     60
```

6627

```
ctggctaaca cagtgaaacc ccgtctctac taaaaataca aaaaaactag ccaggcgtgg    120
tggtgggcac ctgtagtccc agctgctcag gaggctgagg caggagaatg gcgtgaacct    180
gggagccaga gcttgcagtg agccgagatg gcgccaccgc actccagcct gggagacaca    240
gagagactct gtctcaaaaa aata                                          264


<210> 8993
<211> 163
<212> DNA
<213> Homo sapiens

<400> 8993
ccgggcatgg tggttcatgc ctgtaatccc agcactttgg gaggccgagg cgggtggatc     60
acgaggtcag gagatcgaga ccatcctggc taacacggtg aaaccccgtc tctactaaaa    120
atacaaaaat tagctggacg tggtggcatg tgccagtaat ccc                     163


<210> 8994
<211> 237
<212> DNA
<213> Homo sapiens

<400> 8994
agaccgaggc gggcggatca cgaggtcagg agatcgagac catcatggct aacacggtga     60
aaccccgtct ctactaaaaa tacaaaaaat tagccgggcg atgtggcggg cgcctgtagt    120
cccagctact cgggaggctg aggcaggaga aaggcgtgaa ccccgcgggc cagagcctgc    180
agtgagccga gatcgcccca ctgcactcca gcctgcgcaa cagcgagact ccatctc      237


<210> 8995
<211> 310
<212> DNA
<213> Homo sapiens

<400> 8995
actgagggcc gggcgtggtg gctcacgcct gtaatcccag cactttggga ggccgaggcg     60
ggcagatcac gaggtcagga gatcgagacc atcctggcta acacggtgaa accccgtctc    120
tactagaaat acaaaaaaat tagccgggca tggtggtggg cacctgtagt cccagctact    180
cgggaggctg aggcaggaga atggcatgaa cccgggaggt ggagcttgca gtaagctgag    240
atcacgccac tgcactccag cctgggcaac agagtgagac tctgtctcag aaaaaaaaaa    300
gaaaagaaaa                                                          310


<210> 8996
<211> 176
<212> DNA
<213> Homo sapiens

<400> 8996
tggctcacac ctgtaatccc agcactttgg gaggccgagg caggcggatc acgaggtcag     60
gagatcaaga ccatcctggc taacacggtg aaaccccgtc tctactaaaa atacaaaaaa    120
ttagccagcg cagtggcacg tgcctgtagt ccaagctact gggaggctg aggcag        176


<210> 8997
<211> 278
<212> DNA
<213> Homo sapiens

<400> 8997
aatcccagca ctttgggagg ccgaggcggg cggatcaaca ggtcaggaga tcgagaccat     60
```

6628

```
cctggctaac aaggtgaaac cccatctcta ctaaaaatac aaaaattagc ccggcgtggt      120
ggtgggcgcc tgtagtccca gctactcggg aggttgaggc aggagaatgg cgtgaaccca      180
ggaggcggag cttgcagtga gccaagattg cgccactgca ctccagcttg ggtgacagac      240
cgagactccg tttcaaaaaa aaaaaaaaaa aaaagaat                              278


<210> 8998
<211> 176
<212> DNA
<213> Homo sapiens

<400> 8998
gcagtggctc acgcctgtaa tcccagcact ttgggaggcc aaggtgggca gatcatgagg       60
tcaggagatc gagaccatcc tggctaacat ggtgaaaccc catctctact aaaaatacaa      120
aaaactagcc aggcgtggtg gcgggcgcct gtagttccag ctactcggga ggctga         176


<210> 8999
<211> 2364
<212> DNA
<213> Homo sapiens

<400> 8999
ctcactcctg taatcccagc actttgggag gccgaggcgg gcggatcacg aggtcaggag       60
atcgagacca tcctggctaa cacggtgaaa ccccgtctct actaaaaata caaaaaaaaa      120
attagccggg cgtggtagcg ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga      180
gaatggcgtg aacctgggag gcggagcttg cagtgagccg agatcgcgcc actgcactcc      240
agcctgggcg acagagcgag actccgtctc aaaaaaaaaa aaaaaaaaaa aaaagaataa      300
agtataagag aacatgagtg aatgcctgtc atcttttttt tttttcttc aaaaacaggg      360
tctcactttg tcacccaggc tgcagtgcag tggcgcaatc atggctcact gcaacctcta      420
gcacctgggc tcaagagctc aagaggtcct accaactcag cctcccaagg agctgggact      480
acaggtgcat gccaccacac cctaaggtaa attttttgtgt ttttatagag acaggtttta      540
ccatgttgcc caggctgttc tgaaactcct gggcttaagg gatcgaccca cctccatctc      600
ccaaggcact gggattatag gcatgagcca ccgcgcctgg cctatcatca tttattcatt      660
tattcatcta tgcaaaaata ttctttgagt gcctaattgc taagcaatgg gacaagcact      720
ggcaagtcac actggcaaaa tatcatcccg ccactcaagg agcttatagg tcagctgggg      780
agacaaagaa gaacatgggc ccttgtaatg agctaagtat ggtgctaggg gaaatatcca      840
taagttatgg gaacccagag gaattcattc atttattcgt ttagtaaata tttatgtgcc      900
aaactcttgg gacccaatgg tgacctaagc agacaagaca catccaccta cagtgtttac      960
agagtagtgt gggagacaga cattaatgaa atgctcttac agacctatca ttacctattg     1020
tcatatgagt tatgaaagaa aaataacagg ccgggcatga tggctcacgc ctgtaatccc     1080
agcactttgg gagaccaagg caggtggatc acttgaggtc aggagttcaa gaccagcctg     1140
gccaacatga tgaaacccca tctctactaa aaatacaaaa aaaaaat tatctgggca       1200
tggtggcagg cagctgtaat cccagctact cgggaggctg aggcaggaaa ctcgcttgaa     1260
cctgggaggc agaggttgca ctgagctgag attgcaccac tgcactccag cctgggtgac     1320
agagcaagac tctgtcaaaa aaaaaaaaaa aaagaaagg aaggaaagga aggaaggaag      1380
gaaggaagga aatagagtgt aagagggggg cctagtgtag tctaagatga ctcaggagaa     1440
gctgtttgag ctgatgcctg aagacgggtt gcatgtaagt agttgagtag gtaaaagaga     1500
ggggtactat catatcaggg attcgggaga aaaaaaaga gagagagaga ggggaagagt     1560
gctgtggacc cattgagctc cagcccagct ccaactctgt gggtcaggaa agactttcca     1620
gcatctaagc tgagtccaga aggatgagta ggagtgagcc agctgaggag gagctggggt     1680
ggaaggaaag cattccagag cagcagatag cttgtgcaaa ggcacacagg cagctgggtg     1740
tggtggctca cacctgtaat cccagcactg tgggaggcca agatgggtgg accgtttgag     1800
cccaggaatt caagaccaac ctggatgaca tagtgaaacc ctgtctctac caaaaaaaaa     1860
aaaaaaaaaa ttgaaaaaa aaaagaagct gggcatggtg gcgtgcacct gtggtcccag     1920
ctacccagga aactgaggtg ggaggaagt cgaggctgta gtgaaccatg gtggcaccat     1980
tgcattccag cccgggtgac agagcaaggc cctgtacaaa aaaaaaaaa aaaaaagcat     2040
ggaggcaaca gaacatagtg gattggaagg aaaaacaagt ggttcagacc aggtgcagtg     2100
gctcatgcct gtaatcccag cactttggga ggccgaggcg ggcagatcac gaggtcagga     2160
gatcaagacc atcctcgcta acacagtgaa accccgtctc tactaaaaat acaaaaaaat     2220
tagccaggcg tggtggtgcg tgcctgtagt cccagctact caagaggctg aggcaggaga     2280
```

6629

```
atggcgtgaa cctgggaggc agagcttgca gtgagcggag atcatgccac tgcactccag     2340
cctgggcgac agagcaagac tcca                                             2364


<210> 9000
<211> 298
<212> DNA
<213> Homo sapiens

<400> 9000
tattatgagg ccgggcgctg tggctcacgc ctgtaatccc agcactttgg gaggctgagg      60
tgggcggatc acgaggtcag gagatcgaga ccatcctggc taacatggtg aaacccccatc    120
tctactaaaa atacaaaaaa ttagcagggc gaggtggcag acgcctgtag tcctagctac     180
tcgggaggct gaggcaggag aatggcgtga accccggggg gtggagcctg cagtgagctg     240
agaccgcgcc actgcactcc agcctgggcg acagcgagac tctgtctcaa aaaaaaaa      298


<210> 9001
<211> 276
<212> DNA
<213> Homo sapiens

<400> 9001
cactttggga ggccgaggcg ggtggatcac gaggtcagga gatcaagacc atcctggcta      60
acagcgtgaa accccgtctc tactaaaaat acaaaaaaaa ttagctgggc atggtggcgg     120
gcacctgtag tcccagctac tcgggaggct gaggcaggag aatggcgtga acctgggagg     180
cggagcttgc agtgagccga gatggtgcca ctgcactcca gcctgggcaa caaagcgaga     240
ctctgcctca aaaaaaaaa aaaaaaaaa aaaaat                                276


<210> 9002
<211> 289
<212> DNA
<213> Homo sapiens

<400> 9002
aggccgggcg cagtggctca cgcctgtaat cccagcactt tgggaggccg aggagggtgg      60
atcacgaggt caggagatcg agaccatcct ggccaacatg gtgaaacccc gtctctacta    120
caaatacaaa aattagcagg gcctggggcg ggcgcctgta gtcccagcta cttgggaggc     180
tgaggcggga gaatggcgtg aacccgggag gcggagcttg cagtgagccg agatcgcgca     240
ctgcactcca gcctgggtga cagagcgaga ctccctctca gaataaata                289


<210> 9003
<211> 261
<212> DNA
<213> Homo sapiens

<400> 9003
gtgcctcacg cctgtaatcc cagcactttg ggaggccgag gcgggcggat catgaggtca      60
ggagatctag accatcctgg ctaacacagt gaaaccccgt ctctactaaa aatacaaaaa    120
attagccggg catggtggcg ggcgcctgta ttcccagcta ctagggaggc tgaggcggga     180
gaatggcgtg aacctgggag gcggagcttg cagtgagccg agattgcgtt aatgcaatcc     240
agcctgggcg acagagcgag a                                               261


<210> 9004
<211> 169
<212> DNA
<213> Homo sapiens
```

6630

<400> 9004
```
ctgtaatccc agcactttgg gaggctgagg tggacggatc acgaggtcag gagatcgaga    60
ctatcctggc taacatggtg aaaccccatc tctactaaaa atacaaaaaa ttagccaggc   120
gtggtggcag gcgcctgtag tcccagctac ttgggaggct gaggcagga              169
```

<210> 9005
<211> 312
<212> DNA
<213> Homo sapiens

<400> 9005
```
gtcctgggcc gggcgcggtg gctcacgcct gtaatcccag cactttggga ggccgaggcg    60
ggcggatcac gaggtcagga gatcgagacg atcccggcta aaacggtgaa accccgtctc   120
tactaaaaat acaaaaaatt agccgggcgt agtggcgggc gcctgtagtc ccagctactt   180
gggaggctga ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga   240
tcccgccact gcactccagc ctgggggaca gagcgagact ccgtctcaaa aaaaaaaaa   300
aaaaagactg tc                                                       312
```

<210> 9006
<211> 284
<212> DNA
<213> Homo sapiens

<400> 9006
```
cagcactttg ggaggccgag gcgggtggat catgacgtca ggagatcgag accaccctgg    60
ctaacaaggt gaaaccccat ctctactaaa aatacaaaaa attagccggg cgcggtggtg   120
ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg aacccgggaa   180
gcggagcttg cagtgagccg agattgcgcc actgtggtcc gcagtccggc ctgggcgaca   240
gagcaagact ccgtctcaaa aaaaaaaaa aaaaaaaag tcta                      284
```

<210> 9007
<211> 298
<212> DNA
<213> Homo sapiens

<400> 9007
```
ttgggccggg cgcagtggct cacgcctgtc atcccagcac tttgggaggc cgagacgggt    60
ggatcacgag gtcaggagat cgagaccatc ctggctaaca cggtgaaacc ccgtctctac   120
taaaaataca aaaattagc cgggcgtgtt ggcgggcgcc tgtagtccca gctactcggg   180
aggctgaggc aggagaatgg cgtgaacccg ggaggcggag cttgcagcga gcggaaatcg   240
caccactaca ctccaggctg ggggacagaa cgagacccca tctcaaaaaa aaaaagaa    298
```

<210> 9008
<211> 282
<212> DNA
<213> Homo sapiens

<400> 9008
```
ttaaacctgt aatcccagca ctttgggagg ccaaggcagg cggatcatga ggtcaggaga    60
tcgagaccat cctggctaac acggtgaaac cccatctcta ctaaaaatac aaaaaaaat   120
tagcagggtg tggtggtggg tgcctgtagt cccagctact cgggaggctg aggcaggaga   180
atggcgtgaa cccaggaggc ggagcttgca gtgagccgag attgtgccac tgcactccag   240
cttgggtgac agagtgagac tccgtctcaa aaaagaaag aa                       282
```

<210> 9009
<211> 138

<212> DNA
<213> Homo sapiens

<400> 9009
```
ctcatgcctg taatcgcagc actttgggag gctgaggcgg gtggatcacg aggtgaggag    60
atcgagacca tcctgggtaa catggtgaaa ccccgtctct actcaaaata caaaaagtta   120
gccgagtgtg gtggtggg                                                  138
```


<210> 9010
<211> 311
<212> DNA
<213> Homo sapiens

<400> 9010
```
agggataggc cgggcgcggt ggctcacgcc tgtaatccca gcactttggg aggccgagac    60
gggcggatca cgaggtcagg agatcgagac catcctggct aacatggtga aaccctgtct   120
ctactaaaaa tacaaaaaaa attagccggt tgtggtggcg agtgcctgta gtcccagcta   180
ctccagaggc tgaggcagga gaatggcatg aacccgggag gcagagcttg cagtgagccg   240
agatcgtgcc actgcacttg agcctgggcg acagagcaag actccatctc aaaaaaaaaa   300
aaaaaaaaaa a                                                        311
```


<210> 9011
<211> 131
<212> DNA
<213> Homo sapiens

<400> 9011
```
agtggctcat gcctgtaatt ccagcacttt gggaggctga ggtgggtgga tcacgaggtc    60
aggagattga gaccatcctg gctaacatgg tgaaacccag tctctactaa aaatacaaaa   120
aaaaaaagaa a                                                        131
```


<210> 9012
<211> 158
<212> DNA
<213> Homo sapiens

<400> 9012
```
gcagtggctc acgcctgtaa tcctagcact ttggaaggcc gaggggggtg gatcacgagg    60
acaggagatc gagaccatcc tggctaacat ggtgaaactc tgtctctact aaaaatacaa   120
aaaattagcc aggcgtggtg gcaggcgcct gtagtccc                           158
```


<210> 9013
<211> 6150
<212> DNA
<213> Homo sapiens

<400> 9013
```
aagatttttc aaggaatttt cttctctata atataattaa tgatctccta cttggacttc    60
tgtaaaagat tacagtaaat cgtgaagtct tatggaggtt tttgcgggag tgggtgggag   120
tagttgtcta ttactgcgtc tttgaatcta aaacagtacc aggatggggc cagagggcat   180
ctgggctctt cacggattat ataggcttga ccttgttagt actgcatgct gtcagagcct   240
catccaaaaa ccactgagat gtttttgtgc aggggaaata aaatttcaag cactggccta   300
tcatctaaag tgacttcttt tcttgaccca gtagttttct ggtgggttat aaagtgactt   360
tttttatgcc gagaactatt gaaacaattt attttgtgt acaaatatgt atgttttgaa    420
ttaactataa atattacgtt ataaaacttt tttatttta tttttataaa acttgtgttt    480
ttaaattgga aattacactc attgaattgt tttacacatg cagacacaca gacacacaca   540
cacacacagc gaaacaaaat cctgagtgac agcaccctgt aactaactgt ggtgagattt   600
```


6632

```
gattcaagtt gacagactct tctgttttag agagtaaatg cctttggatt ataacttaca    660
tgtctttctc aggaaaccag aatgggaggt gggtaacgaa atattctttt tggaaatgga    720
agaatcttag aataaaatat aaattcaaat tgccaatact ggcttgacgg taaagtggca    780
aatctcacca agacagagga ttgtgtgcat taccctgagc tgccactcat tcatcagggg    840
tttactgagc atttgttatg tgcctggccc tgtgctaggc cccggggatg gcaggataaa    900
tccaatgtgg cttctgcctg tgaggttctg taagtttgtg gggaagaggg atgtctcagc    960
agaagcttgt gagactgtag aaggggtctc agggacactg gaggtgcaaa aactagctct   1020
tcctggagtg ggagtaggac tagcttccct gaagcagctg ccctggtgct gggccttggg   1080
aacagatgga ggagccggtg tccccagcca ggactccgta aaggtgtggc attgcaggag   1140
ggcctggtct gttctgaaga gggtagggtg agactggaaa gccaaacggg ccagattgtg   1200
tggaggtttt atctcatggg cagcgtacca tttggcccag gagtgccatg cctggggttg   1260
tatttttaaa aatatagtaa ccatctcccc ctgcactctc atctaccctg ctgcgtattc   1320
ttggtgatac gttccaagac ccccaatgaa tgcctgaaac cacagatggt actgaaccct   1380
gtatatacta cacacgaatt tcacttttct tcacaatttc atgggtagaa gattcgttct   1440
taccgaagat cttaacatcc ttacctcttt ttttttcctt attgagactt ttgccgtttc   1500
acttaaagga agcatttttg gcttctcttt ggcatatctg aattgccagc atcactatcc   1560
ttacactttg ggggcccttc taataaataa agggttactt gaagacaagc actgtgatac   1620
tgagacagtt gatctgataa ctgcgttggc tactaagtaa caggctggca gcatccacag   1680
catggacacg ctggacaaag ggatggctcg cagtttttgt aatggcaaaa atttcatcac   1740
actactcaga gcgacatgta gtttaaaact tacgacttgt ttatttctgg aattttccat   1800
ttagtatttt tgaaccggag ttgaccatgg ataactgaaa ttacagaaag tgaaacgtgg   1860
ctaacggggt gctagtccct cagtcatccc caagcccttc accaactctg ccctgtattt   1920
cagatcaccg aagtggcctt ggagtacaac aactgtcatg gggaccaggt ggtggagcgt   1980
ctccttcagc acctgcggcg ggtggatgct ccagtgctgg agtccctggc cctggaagtg   2040
ccggcacagc tgccagaccc gccaacgatc acagcgtccc cctgctgcaa cactgtggtg   2100
ctgccccagt ggcactcctt ctccaggacc cacaacgtct gtgaactctg tgtcaaccag   2160
acctccgggg gcatgaagcc gagctcggtc agcgtgccac agtgcagctt ttttgaaatg   2220
gcagcagctc tggattcttt ctacctcaag gagcagacct tttatcatgt ggcatcagac   2280
agcatagaat gcagcaattt tttaacttcc tatagcccct tcagctacta cactgcatgt   2340
tgcaggacca taagcagggg tgtgtcaggc ttcatcgact ctgaacaagg tgtctttgaa   2400
gcccctactg ttgcattttc ttcccttgag aagaaatgtg aggttgatgc cccaagctcc   2460
gttcctcaca ttgaggagaa caggtatctc tttccagaag tggacatgac tagcacaaac   2520
ttcacaggcc tgagctgcag aaccaacaag actctcaaca tctaccttt ggattcaaat   2580
ttgttttggt tatatgcaga gagactgggt gctccgagct ccactcaggt gaaagaattt   2640
gcggcaattg ttgacgtgaa agaagaatct cattacatct tggatccaaa gcaagcactg   2700
atgaagctca ccctaggtac tgcaggcagt ttatttcccc aagcattgta cattttgctt   2760
gacttcatat gggtaaattt tattgatggc tctcattaca tttagttgtg gggtgatgtc   2820
accttcgtag ctcattttaa gtctttagac caccatcagt cataatttc aaagaagcta   2880
attttgtcta ttaaatggaa cagaaacttc ctcactctga attttggata agtttgtcat   2940
ttagcccatg gtgggggtaa gagtcccact ttctaaattg gcgatttctg tcacatgtct   3000
aaggtagaac cagctgcagg cagtggggac ttggggacta gaacaggcag ggaggtggag   3060
agctattctg gtgggatgtc ctaggggctg atgaaagtga gccttgacag cagctttgtt   3120
ctaaaggagc ttaaagagaa agcagtggcc gggcgcagtg gctcacgcct gtaatcccag   3180
cactttggga ggccgaggcg ggtggatcac gaggtcagga gatcgagact atcctggcta   3240
atgtggtgaa accccgtctc tactaaaaat acaaaaaaaa aaaaattag ccgggcgcgt   3300
tggcgggcgc ctgtagtccc agctactcgg gaggctgagg caggagaatg tcgtgaacct   3360
gggaggcaga gcttgcagtg agcagagatc gcgccctgc actccagcct gggcgacaga   3420
gcaagactcc gtctccaaaa aaagagagca gtgaagaagg aagtagagcc gccttgcctc   3480
ccttttgtc tcataggctt aaatgtctaa ggatcaaggc caccagacct aatttgttct   3540
gctgctgttt cataatgtac tgagtaatat tgctgggacc tggggtacct acactgtaac   3600
aagtgtaaag tgcaaataaa taagtgtcag tcgcaaacca gcaaaaccca ctttttgagg   3660
agtaaggctc catgatgaga aagcacccag agcttgcccc tgggacttgg cagcaacatt   3720
gggctgaccc accctggcct gttcccagga atttgctgat gcccttgact acacacaatg   3780
aagtgagaat tcaaaagcca cgttagttca gcctcattgg aaacgggagg gagggtcagt   3840
gtatgccgaa tggagaaagg aggaatttgg tagggaagga aacctttcat ttcaagtttt   3900
aaagtatgaa ctcaacagta gactcagagc ttctacatat gagtcttttt agccatcctc   3960
tttcaaatct aggtgaagct tgtttcttac attagacaca tttgtgaaaa ggctttatgt   4020
aaatattgat ttttctatat caagttacat attataaatc caagagttcc tcactgtgta   4080
aaagaaccct gtgaccagtc acttttgaa gggcataaat ctgtcgatat tatagattac   4140
tcccaattca tgttatctaa agtcatttg atgtgttgag ctttcttaaa atgaaacaag   4200
cattttttt ttaaatggga aagagactcc agagaaatgg ggtcagtgtt cctacaagca   4260
```

```
tgtattttttg aggtagtctg tattagattt tcctgaattc cattcagtaa tgctcaagtg    4320
tttaatgacc tcataatgtg ttcactttga atttaagggt aattgaaaga agccttcttt    4380
agatttcttt ccatcttctg tatcttctct gaaatgttta gcctagctgt tctttgtcct    4440
gcagttagtg acagaattct tagggagctt gtaaaaaaca cctactgtgt gtcattgttg    4500
gtttagagac ttaactcata aatcagctgt ctctaggcta gtttcagaat ttaggcttta    4560
ttcagattag gaaataattc ttggtttcat gttttcaaaa catagccaac taagtgtttc    4620
tcagatgctg atcatgaatt ctctttagta ttcacatgac attcttcact tcctcttcca    4680
ttctgcacgc tgcattgccc attgcacctc aaaatggagg gagttagaag aaagaaaaag    4740
aactgaaact ttagctgagt gcaatggtgg acgcctgtag tcccagctac tctggaggct    4800
gaggtaggag gatcgcttga gcccaggagt ttaaggctac agtgagctat gattgcagca    4860
ctgtactcca gcctgggcaa cagagtgaga ccctgtctct ttaaaaaaaa aaaaaaaagt    4920
gaaattcaaa ttagtattgt ttcagatgaa gcaaaggact ctgaagatgg cagaatttgt    4980
ggtaaaactg ttggttcaaa tcaggttttt gattattatg ggttttatgt attttttccac    5040
tacatataat tttttcttaa cctttaaaaa aagaaactta aagaacctta ataaaggaaa    5100
caaaaaactg tagctccttg tcctcaaatt aatgagcatt taaacacatt ccacactact    5160
gtagcttgtg cagttgtcac atttgtggtt aagcttaaag gtcttagtat tatagggtga    5220
aatttcttga aaagatggtg gcttgttgat gatttataca gtctcacttg gtgtctattt    5280
gtggaccagt ccttttaaaa aaagaatagt ctatgaatat tagagcatct aacattgcat    5340
agtgttttgt tatccacatt actgtctgct gagttaatac taccagagct aaacctgatg    5400
ccacccgggc agctttgttt ggggttttgc tgataggtga aatgttaaaa atgtgagcct    5460
atgaagtcat ttgagttttt aaaatgtgga gtttaaaagt aggccagcta ttctctttgt    5520
atctagagga gagttgatct cattttctct ttattttttag agtcttttat tcaaaacttc    5580
agcgttctct atagtccctt gaaaaggcat ctcattggaa gtggctctgc ccagttcccg    5640
tctcagcatt taatcactga agtgacaact gatacctttt gggaagtagt ccttcaaaaa    5700
caggtatgga gtcatgagag gcaaaagtta agccatctgt ccctcttaaa ataatttcca    5760
aactacagtt gttggggtga gcagctgttt ttgatgtata gaagagtaac cacgtgatgg    5820
cccaattatg gaccgtgaat gaattacatg tggtttttaa atttcagaaa agtgctccag    5880
aaagcacagt attggaaaga cctaaagatg aaaattttca ctgtaatatt tgcataggta    5940
gcatttttcg ggtgcttgct ggattctaag caatgaggaa agaaatgaag aagagcccat    6000
ttcccggtgc aagtaacatc tgtcttccct ttcccacagg acgttctcct gctctattac    6060
gctccgtggt gcggcttctg tccatccctc aatcacatct tcatccagct agctcggaac    6120
ctgcccatgg acacattcac tgtggcaagg                                      6150


<210> 9014
<211> 142
<212> DNA
<213> Homo sapiens

<400> 9014
gggcagtggc tcacacctgt aatcccagca ctttgggagg ccaaggcggg cggatcatga     60
ggtcaggaga tcgagaccat cctggctaac atggtgaaac ctcgtctcta ctaaaaatac    120
aaataattag ccgggtgtgg tg                                              142


<210> 9015
<211> 281
<212> DNA
<213> Homo sapiens

<400> 9015
cactttggga ggccgaggcg ggcggatcac gaggtcagga gatcgagacc atcctggcta     60
acacggggaa accccgtctc tactaaaaat acaaaaaatg agccgggcgc ggtggcgggc    120
gcctgtggtc ccagctactc gggaggctgg ggcaggagaa tggcgcgaac ccgggaggcg    180
gagcttgcag tgagccgaga tcgcgccacc gcactccagc ctgggcgaca gagcgagact    240
ccgtctcaaa aaaaaaaaaa agaaaaagaa aaaggacaac a                        281


<210> 9016
<211> 147
<212> DNA
```

<213> Homo sapiens

<400> 9016
```
tcggccgggc gcggtggctc acgcctgtaa tctcagcact ttgggaggcc aaggcgggtg    60
gatcaagagg tcaagagatc aagaccatcc tggctaacat ggtgaaaccc cgtctctact   120
gaaaatacaa aaaattagct gggcgtg                                        147
```

<210> 9017
<211> 312
<212> DNA
<213> Homo sapiens

<400> 9017
```
aaacagaagc ccttggccgg gcgcggtggc tcacgcctgt aatcccagca ctttgggagg    60
ctgaggcggg cggatcacga ggtcaggaga tcgagaccat cctggctaac atggtgaaac   120
cccgtctcta ctaaaaatac aaaaaattag ccgggcgagg tggcgggcac ctgtagtcac   180
agctactcgg gaggctgagg caggaaaatg gcgtgaaccc aggaggcgga gcctgcagtg   240
agccgagata gtgccactgc actccagcct gggggacaga gcgagactcc gtctcaaaaa   300
aaaaaaaaaa aa                                                        312
```

<210> 9018
<211> 129
<212> DNA
<213> Homo sapiens

<400> 9018
```
gggcgctgtg gctcacgcct gtaatcctag cactttggga ggccgaggca agtggatcac    60
gaggtcagga gatcgagacc atcttggcta acacggtgaa accccgtgtc tactaaaaat   120
acaaaaaaa                                                            129
```

<210> 9019
<211> 277
<212> DNA
<213> Homo sapiens

<400> 9019
```
ataagtcact ttgggaggcc gagacgggcg gatcacgagg tcaggagatg gagaccatcc    60
tggctaacac ggtgaaaccc cgtctctact aaaaatacaa aaaattagc cgggcgtagt    120
ggcgggcacc tgtagtccca gctactccgg aggctgaggc aaggagaatg gcgtgaacct   180
gggaggcgga gcttgcagtg agccgagatg gcgccactgc actccagcct gggtgatgga   240
gcgagacttg tctcaaaaaa aaaaaaaaaa agaataa                             277
```

<210> 9020
<211> 175
<212> DNA
<213> Homo sapiens

<400> 9020
```
cacgcctgta atcccagcac tttgggaagc ccaggtgggc ggatcacgag gtcaggagat    60
caagaccatc ctggccaaca tggtgaaacc ccgtctctac taaaaataca aaaaaattag   120
ccgggcgtgg tggcccgcgc ctgtggtccc agatactcgg gagtctgagg cagga         175
```

<210> 9021
<211> 309
<212> DNA
<213> Homo sapiens

<400> 9021
```
cctgtaatcc cagcactttg ggaggccgag gcgggcggat cacaaggtca ggagatcgag      60
accatcccgg ctaaaacggt gaaaccccgt ctctactaaa aatacaaaaa attagccggg     120
cgtagtggcg ggcgcctgta gtcccagcta cttgggaggc tgaggcagga gaatggcgtg     180
aacccgggag gctgagcttg cagtgagccg agatcccgcc actgcactcc agcctgggcg     240
acagagcgag actccgtctc aaaaaataaa aataaaaata aaaaataata ataaaaataa     300
aaaataaaa                                                              309
```

<210> 9022
<211> 310
<212> DNA
<213> Homo sapiens

<400> 9022
```
ggacgggcgc ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga      60
tcacgaggtc aggagatcga gaccatcccg gctaaaacgg tgaaaccccg tctctactaa     120
aaatacaaaa aattagccgg gcgtagtggc gggcgcctgt agtcccagct acttgggagg     180
ctgaggcagg agaatggcgt gaacccggga ggcggaggtt gcagtgagcc gagatcccgc     240
cactgcactc cagcctgggc gacagagcga gactccgtct caaaaaaaaa aaaaaaaaaa     300
aaaaaaaaat                                                             310
```

<210> 9023
<211> 253
<212> DNA
<213> Homo sapiens

<400> 9023
```
ctttgggagg ccgaggcagg cagatcacga ggtcaggaga tcgagaccat cctggctaac      60
atggtgaaac cccgtctcta ctaaaaatac aaaaaattag ctgggtgtgt tgcaggtgc     120
ctgtagtccc agctactcgg gaggctgagg caggagaatg gctgaaccc aggaggcggc     180
ttgcagtgag ccgagatcgc accactgcac tccagcctgg gcgacagagc gagactccat     240
ctcaaaaaaa aaa                                                         253
```

<210> 9024
<211> 303
<212> DNA
<213> Homo sapiens

<400> 9024
```
actgtagagg ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg gaggccgagg      60
tgggcggatc acgaggtcag gagatcgaaa ccatcctggc taacacggtg aaaccccgtc     120
tctactaaaa atacaaaaaa attagccagg cgtggtggca ggcacctgta gccccagcta     180
ctcgggaggc tgaggcagga gaatggcatg aacccaggag gcagagcttg cagtgagccg     240
agatcccgcc actgcactcc agcctgggtg atagagcaag actccgtctc aaaaaaaaaa     300
aga                                                                    303
```

<210> 9025
<211> 292
<212> DNA
<213> Homo sapiens

<400> 9025
```
tggctcaagc ctgtaatccc agcactttgg gaggtcgagg cgggcggatc acgaggtcag      60
gagatcgaga ccatcctggc taacacggtg aaaccttgtc tctactaaaa atacaaaaat     120
tagccgggca tagtggcggg cgcctgtagt cctagctact cgggaggctg aggcaggaga     180
atggcgtgaa cccgggaggt ggagcttgca gtgagctgag attgcgccac tgcactccag     240
```

6636

cctgggtgac agagtgagac tccgtctcaa aaaaaaaaaa aaaattaaaa aa   292

<210> 9026
<211> 287
<212> DNA
<213> Homo sapiens

<400> 9026
ttgtaatccc agcactttgg gaggccgagg cgggcggatc acaaggtcag gagatcgaaa   60
ccatcctggc tgacacggtg aaaccccgtc tctactaaaa atacaaaaaa atggccgggt   120
gtggtggcga gcacctgcct gtagtcccag ctactcggga ggctgaggca ggagaatggc   180
ttgaacccgg gaggcggagc ttgcagtgag ccgagatcgc gccactgcac tccagcctag   240
gcgacagagc aagactccct ctccaaaaaa aaaaaaaaaa aaaaaaa   287

<210> 9027
<211> 130
<212> DNA
<213> Homo sapiens

<400> 9027
tgcctgtaat ccaagcactt tgggaggtcg aggcgggtgg atcacgaggt caggagatgg   60
agaccatcct ggctaacatg gtgaaacccc atctctacta aaaatacaa aaaattagct   120
gggcatggtg   130

<210> 9028
<211> 273
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (18)
<223> n equals a,t,g, or c

<400> 9028
tcttttggga ggccgagncg ggcggatcac gaggtcagga gatcgagacc atcctggcaa   60
acacggtgaa accccgtctc tactaaaat acaaaaaat tagccgggcg tggtggcggg   120
cgcctgtagt cccagctact cgggaggctg aggcaggaga atggcgtgag cccgggaggc   180
ggagcttgca gtgagcggag atcgcgccac cgcacttcag cctgggcgac agagcaagac   240
tcttgtctca aaaaaaaaaa aaaaagtgg cag   273

<210> 9029
<211> 279
<212> DNA
<213> Homo sapiens

<400> 9029
cactttggga ggccgaggcg ggcggatcac gaggtcagga gatcgagacc attctggcta   60
acacggtgaa accccgtctc tactaaaat acaaaaaatt agccgggcgt ggtagcgggc   120
gcctgtagtc ccagctactc gggaggctga ggcaggagaa tggcgtgaac ccgggaggcg   180
gagcttgcag tgagccgaga tcgcgccact gcactccagc ctgggcgaca gagcgagact   240
ccgtctcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaga   279

<210> 9030
<211> 308
<212> DNA

<400> 9030
agggccgggc gcggtggctc atgcctgtaa tcccagcact ttgggaggcc gaggcgggcg   60
gatcacgagg tcaggagatc gagaccatcc tggctaacgt ggtgaaaccc cgtctctact   120
aaaagtacaa ataaaaaatt agccgggcgt ggcggtgggc gcctgtagtc ccagctactc   180
gggaggctga ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga   240
ttgcgccact gcactccagc ctgggcgaca cagcaagact ccgtctcaaa aaaaaaagtt   300
gaaaagct   308

<210> 9031
<211> 158
<212> DNA
<213> Homo sapiens

<400> 9031
aaaccccgtc tctactaaaa atacaaaatt agctgggctt ggtggcgcat gcctgtaatc   60
ccagctactc gggaggttga ggcaagagaa ttgcctgaac ccaggaggcg gaggttgcgg   120
agagccgaga tcatgccatt gcactccagc ctgggcaa   158

<210> 9032
<211> 320
<212> DNA
<213> Homo sapiens

<400> 9032
atggtggctc acgcctgtaa tcccagcact ttgggaggcc gaggcgggcg gatcacgagg   60
tcaggagatt gagaccatcc tggctaacac ggtgaaaccc cgtctctact aaaaatacaa   120
aaaattagc cgggcgtggt ggcgggcacc tgtagtccca gctactcagg aggctgagac   180
aggagaatgg cgtgaacccg ggaggcagag cttgcagtga gccgagattg caccactgca   240
ctccagcctg ggcaacagag caagactccg tctcaaaaaa aaaaagaaa aagaaaaga   300
aaagaaaaga aaacgaagtc   320

<210> 9033
<211> 124
<212> DNA
<213> Homo sapiens

<400> 9033
gcccatgcct gtaatcccag aactttggga ggccgaggcg ggcggatcac gaggtcagga   60
gatcgagacc atcctggcaa acacggtgaa accccgtctc tactaaaaat acaaaaaaaa   120
aaat   124

<210> 9034
<211> 308
<212> DNA
<213> Homo sapiens

<400> 9034
caggccgggc gcggtggctc acgcctgtaa tcccagcact ttgggaggcc gaggcgggcg   60
gatcacgagg tcaggagatc gagaccatcc tggctaacac ggtgaaaccc cgtctctact   120
aaaaatacaa aaaattagcc gggcgtggtg gtgggcgcct gtaatcccag ctactcggga   180
ggctgaggca ggagaatggc atgaacccaa gaggcggagc ttgcagtgag ccgggatagc   240
gccactgcag tccagcttgg gcgaaagagt gagactccgt ctcaaaaaaa aaaaaagtt   300
gaataaac   308

6638

<210> 9035
<211> 300
<212> DNA
<213> Homo sapiens

<400> 9035
gctcacgcct gtaatcccag cactttggga ggccgaggcg ggcggatcac gaggtcagga   60
gatcgagacc atcctggcta acacggtgaa accccatctc tactaaaaat acaaaaaatt   120
agccgggcgt ggtagcgggc gcctgtagtc ccagctactc gggaggctga ggcaggagaa   180
tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga tcgcgccact gcactccagc   240
ctgggcgaca gagcgagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa aaaaaattaa   300

<210> 9036
<211> 226
<212> DNA
<213> Homo sapiens

<400> 9036
tggtggctct cgcctgtaat cccagcactt tgggaggccg aggcgggcgg atcgcgaggt   60
caggagatca agaccatcct ggctaacatg gtgaaacccc gcctccacta aaaatacaaa   120
aaattagccg ggcatggtgg cgggcgcctg tagtcccagc aactcgggag gctgaggcag   180
gagaatggcg tgaacccagg aggcggaggt tgcagtcagc caagat   226

<210> 9037
<211> 308
<212> DNA
<213> Homo sapiens

<400> 9037
ggtctgccag gcgcagtggc tcacgactgt aatcccagca ctttgggagg ccgaggcggg   60
cggatcacga ggtcaggaga tcgagaccat cctggctaac acggtgaaac ccggtctcta   120
ctaaaaatac aaaaagttag ccgggcgtgg tggcgggcgc ctgtagtccc atctactcgg   180
gaggctgagg caggagaatg gcgtgaaccc gggaagtgga gcttgcagta agccgagatc   240
gtgccactgc actccagtct gggcgacaga gcgagactcc gtctcagaaa ataaacaaac   300
aaaaaatc   308

<210> 9038
<211> 140
<212> DNA
<213> Homo sapiens

<400> 9038
aggccgaggc gggtggatca cgaggtcagg agatcgagac catcctggct aacatggtga   60
aaccccatct ctactaaaaa tacaaaaaaa tagccgggcg cggtggtggg cgcctgtagg   120
cccagctact tgggaggctg   140

<210> 9039
<211> 287
<212> DNA
<213> Homo sapiens

<400> 9039
acgcctgtaa tcccagcact ttgggaggcc gaggtgggcg gatcacgagg tcaggagatc   60
aagaccatcc tggctaacac ggtgaaaccc cgtctctact aaaaatacaa aaaattagcc   120
gggcgtggta gcgggcgcct gtaatcgggg gtactccgga ggctgaggca ggagaatggc   180
gtgaacccgg gaggcggagc ttgcagtgag ccgagattgc gccactgcac tccagcctgg   240
gcgacagagc gagacttcat ctcaaaaaaa aaaaaaaaaa aaaaaaa   287

6639

<210> 9040
<211> 266
<212> DNA
<213> Homo sapiens

<400> 9040
atttgggagg ccgaggcggg cggatcacaa ggtcaggaga tcgagaccat cctggctaac   60
acggtgaaac cccgtctcta ctaaaaatac aaaaaaatta cccgggcgtg gtggtgggcg   120
cctgtggtcc cagctactcg ggaggctgag gcaggagaat ggtgtgaacc cgggaggcgg   180
agcttgcagt gagccgagat cgcaccactg cactccagcc tgggcgacag agcgagactc   240
catctcaaaa aaaaagaaat aagaaa   266

<210> 9041
<211> 142
<212> DNA
<213> Homo sapiens

<400> 9041
taaaggctgg gcgcagtggc tcacgcctgt aatcccagca ctttgggagg ccgaggcagg   60
tggatcacga ggtcaggaga ttgagaccat cctggctaac atggtgaaac cccgtctcta   120
ctaaaaatac aaaaaaaaaa aa   142

<210> 9042
<211> 157
<212> DNA
<213> Homo sapiens

<400> 9042
cgtgactcac gcctgtaatc ccagcacttt gggaggccga ggcgggcaga tcacgaggtc   60
agaagatcga gactatcctg gctaacacgg tgaaaccccg tctctactaa aaatcaaaaa   120
aaattagccg ggagtggtgg cggttgcctg tagtccc   157

<210> 9043
<211> 322
<212> DNA
<213> Homo sapiens

<400> 9043
cggccgggcg cggtggctga cgcctgtaat cccagcactt tgggaggccg aggcgggcgg   60
atcacgaggt caggagatcg agaccatcct ggctaacacg gtgaaacccc gtctctacta   120
aaaatacaaa aaattagccg ggcgtggtag cgggcgcctg tagtcccagc tactcgggag   180
gctgaggcag gagaatggcg tgaacccggg aggcggagct tcagtgagc cgagatcgcg   240
ccactgcact ccagcctggg cgacagagcg agactccgtc tcaaaaaaaa aaaaaaaaaa   300
aaaaaaaaaa aaaaaaaat tc   322

<210> 9044
<211> 5125
<212> DNA
<213> Homo sapiens

<400> 9044
tcccagcact ttgggaggcc gaggcgggtg gatcatgagg tcaggagatc gagaccatcc   60
tggctaacaa ggtgaaaccc cgtctctact aaaaatacaa aaaattagcc gggcgcggtg   120
gcggacgcct gtagtcccag ctactcggga ggctgaggca ggagaatggc gtgaacccgg   180
gaagcggagc ttgcagtgag ccgagattgc gccactgcag tccgcagtcc ggcctgggcg   240

6640

```
acagagcgag actccgtctc aaaaaaaaaa aaagaaagtg tggagttgag gccttgctgc   300
tggcttatct ctcttaaggc tacaagcgca atcaatgctg gcagtgttgc tgggacccaa   360
gcctctatgc cccagatggc aggccccatt ccatcctgga tggtgtgacg gtgggcactg   420
cagatcgagc agggagccct ggagaagtgc tagggctggg gaaaggggag gaggcagcct   480
gagccatgga agaaaccatc ctggtcactg catgcttggg tactcagcct acttccttgg   540
ttccatctaa cagtccccag agccctagga cctggatctg ggccttgctc accctccctg   600
ttctcaaaat ccttcttgct gatccaactc ctttccagcc tcaggtctt  tgcatgtgtg   660
actctctgcc aaaaaccctc tttcctcaac actgtttctg gtggtttttc cccggttgat   720
aaggcctcag caaaatgtca cctcctggga ggcttccctt gcctctctat tcagctattt   780
atagcagcct cctgtcattc tttcacactg tttgctacaa tttgtgcttt aatagtcatt   840
tgttcctta  ttggttcaag ggtcagtgtt ggtgtggtca ctgctgagtc cactgtgccc   900
agaagacagg gtccacagca ggcactccat aaatacatgt tgcaggactg ccctcactgg   960
ctcactctgt ggagtgaggg acctaatggg ccccatttac ctattgcctc tgaaagttaa  1020
agggcaggaa caaggtggag ggccactgcc ctctggcctg gcatggccca gaggcagctt  1080
ggggttagct caaggcagct aagcaggtcc agcccaagaa ctaagtcaag tgggccgagg  1140
aggctctgag agtggccggg gccggcgtac attccctggc atgggtgaga actgcggctg  1200
ttctggacgc acattcatct catgcgaggt gctggggccc aagttcatgt aggttgctgg  1260
cagctgcaca taatggtccc caagcagtgc agacactatc tgctccacct ccccactag   1320
tactccgaag gtgggtcgca ctgctgggtc tgcctcccag cattgctgca tcacttggta  1380
cctgttgggg gaaagggatg tcaggttaag gcaatttcca cccaaggatt ctgggccacc  1440
cacttgctgt taaacctctg gcaggccaca cagggatgag gatagatgac aggacctagt  1500
acctagcact acccaatcag gggcagctct tctcatccct atgattactg ttccagtcct  1560
gccttccac  cctggcagag gtcgaactac ctcaggtgtt aagagcttgg gctcctgtgc  1620
cctgtggcct gggctatgtg atcttggata agttccttaa cttctctgtg cctctgggtc  1680
ctcctctgat cacagagaag taggcatata ggctgatgcc tgtgaagtgc taggcacaag  1740
gcccagctca cgaggtacaa tggtcatcat cacagttctt ccaggaagga agcctgggtc  1800
cagcaaagca ggaattaaaa atcctgaagt ggccgggggc agtggctcat gcctgtaatc  1860
ccagcacttt gggaggctga ggtgggcagg tcacgaggtc aggagttcga gaccagcctg  1920
gccaacatag tgaaacccca tctctactaa aaatacaaaa attaactggg caaagctggg  1980
cgtggtggct cacgcctgta atcccagcac tttgggaggc caaggtgggt ggatcacgag  2040
gtcaggagat cgagaccatc ctggctaaca cagtgaaacc ccgtctctac taaaaacaca  2100
aaatattagc cgggcgtcgt ggcaggcgcc tgtagtccca gctactcggg aggctgaggc  2160
aggagaatgg cgtgaacccg ggaggcggag cttgcagtga gccgagattg caccactgca  2220
ctccagcctg ggcaacagag cgagactcca tctcaaaaaa aaaaaaaaaa aattactggg  2280
cgtggtggca cacgcctgta gtcccagtta ctcaggaggc tgaggtagga gaatcacttg  2340
aacctgggag gcagaggttg cagtgagcca acattgcgcc accgcactcc agcctgggca  2400
tcagagtgag actctgtctc aaaaaaaaaa aaaaaaattc tgaagcaaga gcatttgggg  2460
cagcaccagt ggcaccctgg tcctgaagca gaggttcccc aggtttacct gctgggtcct  2520
agtgcctgcc ccattatctt ggggatgtca ttcctgcctg aaataatact ctaccctaca  2580
cacaatatct catataattc tcagactctc ggaaggtggt actgttgtct ccactttaca  2640
gatgaggaaa ttgaggccca gagaggagaa gggctggact gctgaagtgg accctatggt  2700
gtgccaccca gatacccctt tactttccca gtggctagga gtgttgcctg ctgatggttc  2760
ttgactgagg ctctctctag gaattgccct aggcagaaga gaactgcctc tgccaagctc  2820
acatcccctc accagggaca gcctgtgact agtaactgat taatgcctgg tacaaagacc  2880
tggcctgttg gtctcaattt cagaaaactg tggtgggtca tcccagttca agcagtccct  2940
gtgggatggg ctgcagtttc tgtgacattt ctcctgccca gtccttcttc ccttgccccc  3000
aacctctcag taaatccccg tacataaatc tccagctgag tctgtttcca ggagcccaat  3060
ctggatatgg gtaggcagtg aattaaagaa gtgaatagta agagcaaacc caaggcaggt  3120
aggactgtga ggaagggcta ctcgcatcct tcttggagca cagcctgaga caggaggcgt  3180
taactacttt tacctatgtc ctggttctct ctgttctaac ccagcagacc tagccacagc  3240
tcaggcacac ctgctacgta tgaagctgaa cctcagcacc gaacccaccc cgtaggcact  3300
gaggacaatg cagctgccgc catccctcca ggaatgggga atctgaaacc acatacagtg  3360
aaaaaacctg acctggagat ccagagggg  ttgctgtggg ggttatggaa tctttcctcg  3420
agattaaatg agaggaaaag gtggaaagca gaccccgtta gtgggagtcg ggtaggagga  3480
gcactgggaa aatcaaacca cgggcctcaa ccccaactct gagctcagaa tgctgttacc  3540
atggcaactg tgaggtcctc ccagggtcct actctgcatg agggtgggac cagttcacag  3600
atgaggaaat tgaggcccag cgagagtccc tttcctagtc aaccagaagt tcagtcagga  3660
agccaggcag gagctctgtc tcctgtctct tccatgtctc tggggcccag ttccctcccc  3720
actaccacct ccacatactc acagagaatc agggcaatac tcaggctggg gcaggcgccg  3780
accctgggcc aggaagtggg taaggtcaaa agggtcaatg tggcggtatg gtggggcacc  3840
ccgtgtcagc agttcccaca gcagcacacc aaatgaccac tgtggaaagg gggaggtgag  3900
```

6641

```
gggactcaac tcaccccaaa tttgggggca ggtgggtccc ccaggggctt ctacctccca    3960
gagtccttca gctggaaatg gaagacccta ccctccactg agagctcatt cctcaataca    4020
tcacctgtgt ctttcctctg tctcctccca ctacctcatc ctacccagag ttggggctgg    4080
gcaggccctg gattatctgt gaggagccag tgagttccca gcctcctcta gccctggcag    4140
gtgtcagatt ccatcttaca tctgcccaag aggtgagcag atgggctgtg ggggtcatct    4200
accctgggga ctccctgggc tcagatcatt cagagctgaa tgggtgaggc ccagtgttct    4260
tgggtgccaa agccatgtgg actgtagggc aggtgggggcc tcaccacatc agacttggtg    4320
gtaaatctat aggtctgcag gctctccagc gccatccact tcacaggtag gcgagcgtgg    4380
cgatgctgtt gaacactata gtactccctg tccaggatgt cgcgggccaa accaaagtca    4440
gccaccttga ctgtgaatga ctcgtccagc cttaggggta gggagaggat cacacttagg    4500
actggcccctt accaggccct gaacccacct gttctaggcc cttacagaat tttttttttt    4560
tttgagacgg agtctcgctc tgtcacccag gctggagtgc agtggcgcga tctccgctca    4620
ctgcaagctc tgcctcctgg ggtcacgcca ttctcccgcc tcagcctcct gagtagctgg    4680
gactacaggg gcccgccacc acgcctggct aatctttttg tattttagt agagacgggg    4740
tttcaccgtg ttagccagga tggtctcgat ctcctgacct catgatccgc cttcctcagc    4800
ctcccaaagt gctgggatta cagacgtgag ccaccgcgcc tggccaaatt tcaaagccac    4860
agtgtccagt ccaagtctgc actgggcaga caaaaaaagt aaggtgcaga gaggggagga    4920
caaggctgga gtgggccctt ccctgaggcg gccttgagca ccgcacaccc tcatgccctg    4980
tcctttgct tcaccccagc tactctggac tctcacatgc agttccgcgc agccaggtcc    5040
ctgtgcacaa acttctgctc tgccaggtac tccatgccgc gggctacctg caggccaaag    5100
ctgatgaggt ccttcacggt ggggt                                           5125
```

<210> 9045
<211> 140
<212> DNA
<213> Homo sapiens

<400> 9045
```
tggctcacgc ctgtaatccc agcactttgg gaggctgagg caggcggatc acaaggtcag     60
gagattgaga ctatcctggc taacacggtg aaaccccatc tctactaaaa atacaaaaaa    120
ttagctgggc gttgtggcgg                                                 140
```

<210> 9046
<211> 146
<212> DNA
<213> Homo sapiens

<400> 9046
```
ccaggcgcgg tggctcacgc ctgtgatccc agcactttgg gaggccgagg cgggcagatc     60
acgaggtcag gagattgaga ccgtcctggc taatatggtg aaaccccgtc tctactgaaa    120
atacaaaaaa ttagccgggc aaggtg                                          146
```

<210> 9047
<211> 281
<212> DNA
<213> Homo sapiens

<400> 9047
```
tcccagcact ttgggaggcc taggcgggcg gatcacgagg tcaggagatg gagaccatcc     60
tggctaacac ggtgaaaccc cgtctctact aaaaatacaa aaaaaatta gccgggcgtg    120
atggcgggcg cctgtagtcc cagctactca ggaggctaag gcaggagaat ggcatgaacc    180
caggaggcag agcttgcagt gagccaagat ggcgccactg cactccagcc tgggcgacag    240
agcgagactc cgtctcaaaa aaaaaaagac aacaacaaca a                        281
```

<210> 9048
<211> 166
<212> DNA

<213> Homo sapiens

<400> 9048
```
ggccgggcgc agtggctcac gcctgtaatc acagcacttt gggaggccaa ggtgggtgga      60
tcacgaggta aggagatcga gaccatcctg gctaacacgg tgaaacctcg tctctaccaa     120
aaatacaaaa aattagccgg gcgtcgtggc acgtgcctgt agtccc                    166
```

<210> 9049
<211> 270
<212> DNA
<213> Homo sapiens

<400> 9049
```
tgggaggccg aggcaggtgg atcacgaggt caggagatcg agaccatcct ggctaacacg      60
gtgaaacccc gtctctacta aaaatacaaa aaattagccg ggcgtggtgg cgggcgcctg     120
tagtcccagc tactcgggag actgaggcag gagaatggcg tgaacccggg aggcggagct     180
tgcagtgagc cgagatcgcg cccctgcact ccagcctggg cgacagagcg agactccgcc     240
tcgaaaaaac aaaaacaaaa acacaaagtc                                      270
```

<210> 9050
<211> 296
<212> DNA
<213> Homo sapiens

<400> 9050
```
cggtggctca cgcctgtaat cccagcactt tgggaggccg aggcgggtgg atcatgaggt      60
caggagatcg agaccatcct ggctaacaag gtgaaacccc gtctctacta aaaatacaaa     120
aaattagccg ggcgcggtgg cgggcgcctg tagtcccagc tactcgggag gctgaggcag     180
gagaatggcg tgaacccggg aagcggagct tgcagtaagc cgagattgcg ccactgcagt     240
ccgcagtccg gcctgggcga cagagcgaga ctccgtctca aaaaaaaaa aaaaa          296
```

<210> 9051
<211> 160
<212> DNA
<213> Homo sapiens

<400> 9051
```
cccagaactt tgggaggcca aggcggttgg atcacgaggt caggagatcg agaccatcct      60
ggctaacatg gtgaaacccc gtctctacta aaaatacaaa aaattaacca ggcgtggtgg     120
tgggcgcctg tagtcccagc tactcaggag gctgaggcag                          160
```

<210> 9052
<211> 238
<212> DNA
<213> Homo sapiens

<400> 9052
```
aaaaggccgg gcacggtggc tcacgcctgt aatcccaaca ctttgggagg ctgaggcagg      60
cggatcacga ggtcaggaga tcgaggccat cctggctaac atggtgaaac cccgtctcta     120
ctaaaaatac aaaaaattag ccgggtgtgg tggcgggcac ctgtagtccc agctactcgg     180
ggggctgacg caggagaatg gcgtgaaccc aggaggcaga gcttgcagtg agctgaga      238
```

<210> 9053
<211> 301
<212> DNA
<213> Homo sapiens

<400> 9053

```
cccggtggct cacgcctgta atcccagcac tttgggaggc cgaggcgggc ggatcacaag    60
gtcaggagat cgagaccatc ctggctaaca cggtgaaacc ccgtctctac taaaaataca   120
aaaaattagc tgggcgtcgt ggcgggcgcc tgtggtccca gttactctgg aggctgaggc   180
acgagaatgg cgtgaaccca ggaggcggag cttgcagcga gctgagatcg caccactcca   240
ctccagcctg ggcaacagag cgagactctg tctcaaaaaa aaaaaaaaaa aaaaaaaaat   300
c                                                                   301
```

<210> 9054
<211> 278
<212> DNA
<213> Homo sapiens

<400> 9054

```
cctgtaatcc cagcactttg ggaggcctag gcgggtggat cacgaggtca ggagattgag    60
accatcctgg ctaacatgga gaaaccctgt ctctactaaa aatacaaaaa attagccggg   120
cgtagtggcg ggcgcctgta gtcccagcaa ctcgggaggt tgaggcagga gaatggtgtg   180
aacctgggag gtggagcttg tagtgagccg agatcgcgcc actgcactct agcctgggca   240
acacagcgag actccgtctc aaaaaaaaaa aaaaaga                            278
```

<210> 9055
<211> 195
<212> DNA
<213> Homo sapiens

<400> 9055

```
aacaaggtga aaccccgtct ctactaaaaa tacaaaaatt agccgggcgc ggtggcgggc    60
gcctgtagtc ccagctactc gggaggctga ggcaggagaa tggcgtgaac ccgggaagcg   120
gagcttgcag tgagccgaga ttgcgccact gcagtccgca gttcggcctg ggtgacaggg   180
caagactccg tctca                                                    195
```

<210> 9056
<211> 299
<212> DNA
<213> Homo sapiens

<400> 9056

```
ataggccagg cgcggtggct cacgcctgta atcccagcac tttgggaggc caaagcgggc    60
ggatcacgag gtcaggagat cgagaccatc ctggctaaca cggtgaaacc ccgtctctac   120
taaaaataca aaaaattagc ccgctgtggt ggcgagcgcc tgtagtccca gctacttggg   180
aggctgaggc aggagaatgg catgaacccg ggaggtggag cttgcagtga gccgagatca   240
caccaccgca ctccagcctg ggtgacagca cgagactccg tctcaaaaaa aagaaaaga    299
```

<210> 9057
<211> 218
<212> DNA
<213> Homo sapiens

<400> 9057

```
ggccgggtgc agaggctcaa gcctgtaatc ccagcacttt ggggaggcca aggtgggcgg    60
atcacgaggt caggagatcg agaccatcct ggctaacatg gtgaaacccc gtctctacta   120
aaaatacaaa aaattagccg ggcgtggtgg tggcgcctg tagtcccagc tactcgggag   180
gctgaggcag gagaatggcg tgaatccggg aggcagcg                           218
```

<210> 9058

<211> 296
<212> DNA
<213> Homo sapiens

<400> 9058
aagccaggca cagtggctca cgcctgtaat cccagcactt tgggaggctg aggcgggtgg   60
atcatgacgt caggagatca agaccatcct ggctaacatg gtgaaacccc gtctctacta   120
aaaatacaaa aaaattagcc aggtgtggtg gcgggcacct gtagtcccag ctacttggga   180
ggctgaggca ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagatcgc   240
gccactgcac tctagcctgg gcaacagagc gagactccat ctcaaaaaaa aaaaaa   296

<210> 9059
<211> 295
<212> DNA
<213> Homo sapiens

<400> 9059
aatcccaaaa ctttgggagg ccgaggcggg tggatcatga ggtcaggaga tcgagaccat   60
cctggctaac aaggtgaaac cccgtctcta ctaaaaatac aaaaaattag ccgggcgcgg   120
tggcgggcgc ctgtagtccc agctactcgg gaggctgagg caggagaatg gcgtgaaccc   180
gggaagcgga gcttgcagtg agccgagatt gcgccactgc agtccgcagt ccggcctggg   240
cgacagagcg aaactccgtc tcaaaaaaaa aaaaataaaa aataaaaaaa ataca   295

<210> 9060
<211> 107
<212> DNA
<213> Homo sapiens

<400> 9060
tcccagcact ttgggaggcc gaggcaggtg gatcatgagg tcaggagatc gaggccatcc   60
tggccaacat ggtgaaaccc cgtctctact aaaatacaaa aaaaaaa   107

<210> 9061
<211> 318
<212> DNA
<213> Homo sapiens

<400> 9061
tgactttggc cgggcgcggt ggctcacgcc tgtaatccca gcactttggg aggccgagac   60
gggcggatca cgaggtcagg agatcgagac catactggct aacacggcga aaccccgtct   120
ctactaaaaa taccaaaaat tagctgggcg tggtggcggg cgcctgtagt cctagctact   180
taggaggctg aggcaggaga atggagtgaa cccgggaggc ggagcttgca gtgagccaag   240
atcgcgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa aaaaaaaaa   300
aaaaaaaaaa aaagaaca   318

<210> 9062
<211> 217
<212> DNA
<213> Homo sapiens

<400> 9062
tggctcacgc ctgtaatccc agcactctgg gaggccgagg caggtggatc aggaggtcag   60
cagatcgaga ccatcctggc taacacggtg aaaccccgtc tctactaaaa acacaaaaaa   120
ttagctgggt gcggtggcgg gtgcctgtag tcccagcttc tcgggaggct gaggcaggag   180
aatggcgtga acccgggagg tggagcttgc agtgagc   217

<210> 9063
<211> 307
<212> DNA
<213> Homo sapiens

<400> 9063
```
gccgggcgcg gtggctcacg cctgtaatcc cagcactttg ggaggccgag gcgggcggat      60
catgaggtca ggagatcgag accatcctgg ctaacacggt gaaaccccat ctctactaaa     120
aatacaaaaa attagccagg cgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc     180
tgaggcagga gaatggcgtg aacctgggag gcggagcttg cagtgagccg agatcgcgcc     240
actgaactcc agcctgggcg acagagcgag actccgtctc aaaaagaaaa taaaaaagaa     300
aaatttc                                                               307
```


<210> 9064
<211> 306
<212> DNA
<213> Homo sapiens

<400> 9064
```
tggggccggg cgcagtggct cacgcctgta atcccagcac tttgggaggc cgaggcgggc      60
ggatcacgag gtcaggagat cgagaccgtc ctggctaaca cggtgaaacc ctgtctctac     120
taaaaataca aaaaattagc cgggtgtggt ggtgggcacc tgtagtccca gctactcaga     180
gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc     240
gcgccaccgc actccagcct gggcgacaga gtgagaatcc gtctcaáaaa aaaaaaaaa     300
aagact                                                                306
```


<210> 9065
<211> 663
<212> DNA
<213> Homo sapiens

<400> 9065
```
gaaacaacag gtgctggaga ggatgtggag aaataggaac acttttacac tgttggtggg      60
actgtaaact agttcaacca ttgtggaaga cagtgtggtg attcctcaag gatctagaac     120
tagaaatacc atttgaccca gccatcccat tactggatat atacccaaag gaatataaat     180
catgctgcta taaagacata tgcacacgta tgttcattgt gccactcttc acaatagcaa     240
agacttggaa ccaacccaaa tgtccatcag tgacagactg gattaagaaa atgtggcaca     300
tatacaacat ggaatactat gcagccataa aaaaggatga gttcatgtcc tttgtaggta     360
catggatgaa gctggaaacc atcattctga gcaaactatc acaaggtcag aaaaccaaac     420
accgcatgtt ctcactcata ggtgagaatt gaacaatgag aacacatgga cacaggaagg     480
ggaacatcac acaccggggc ctgtcgtggg gtgggggtag tggggaggga tagcattagg     540
agatatacct aatgctaaat gacgagttaa tgggtgaagc acaccaacat ggcacatgta     600
tacatatgta acaaacctgc acgttgtgca catgtaccct agaacttaaa gtataattaa     660
aaa                                                                   663
```


<210> 9066
<211> 214
<212> DNA
<213> Homo sapiens

<400> 9066
```
ttctgtttgt tagttttcct tctaacagtc aggcccctct tctgcaggtc tgctggagtt      60
tgctgggggt ccactccaga ccctgtttgc ctgggtatca ccagcagagg ctgcagaaca     120
gcaaagattg ctgcctgctc cttcctctgg aagcttcgtc ccagaggggc acccagcaga     180
tgccagccag agctctcctg tatgaggtgt ctgt                                 214
```


<210> 9067

<211> 1096
<212> DNA
<213> Homo sapiens

<400> 9067
```
ggcagctttc ttacaaaccc atccttctga aatgttgctt caaattcatc ctctgctccc      60
cagtcccact attccacaca tactgttact gtttctttat cctactttct caattttgga     120
acatagttgc agttactgca ttgaatacct gtgggtttgc ctgttgttct gtctgtctct     180
gtggttcttg taatagtgga tcccagagat aaaatggaca gttgtaatgc acagttaatt     240
cagaaactag accttacttg ctgtgtgaaa taccaactaa attctcagtg aactcagctg     300
agctttatct ccttttgttt ccccaattta taatttcagt tcaggcccag aaagatggaa     360
tcccagctaa gaaatacaag ttacaccctg tactagcagc ccatgtgtgc atgttcttta     420
agtgctcttg cagctatgtc atttatattg attttccctg tattattata agcaaagcaa     480
atttgaggaa aaaaacccat aataccacac ctcatttttt tcaagtaata gggtcataag     540
tctcattctt catataatat gttgagtatg caatatatta tgtgttaggc tctggaaagg     600
cagaggttag atcatgttac agatcatatc tgattaggca gataaacagt attttaacct     660
tttccttatt atatgtaact tgctttcagg ttttttaatg ttactattat gtctttaata     720
tattatcttt atttgtactt ttgtatacag aagtgatttt cctttttttaa aaaaaattgt     780
gtctttagga tggactccaa agatgtggaa tcagtaggtt taaggaatat ggatattttg     840
gctggcaagg tggctcacac ctgtaatccc agcactttgg gaggctgagg tgggtggatc     900
acctgaagtc aggagttcga gaccagcctg accaacttgg cgaaaccctg tttctactaa     960
agacacacaa aaaattagcc agtggtggtg gcatgtgctt gtagtcccac ttagctactc    1020
gagaggctga ggcaggagaa tcgcttgaac ccgggaggca gaggttgcag tgaggcaaga    1080
tggcacctct acactc                                                     1096
```

<210> 9068
<211> 1902
<212> DNA
<213> Homo sapiens

<400> 9068
```
tcagaagagg aaagatgcgg ttcaggtagt cattcagcag cttctcctgc acaatgcctg      60
agccacaagt cagaagggag aaaagggcca cacgatgagt gcagctcctg gcccctgctg     120
gccccagaga cttctggtcc taggccagcc acaggtgcag caaggcctga ggcctttgtc     180
ccttccttct cctcccaaca agaggagcct ccttccttct ctgccagccc ttacctgtga     240
ccctggattt ctcagcatct gaggtcagcc tacagctctt gcgggagaaa gacacgccgg     300
cccccttgga tgccatcctt cgtctctcat gggcagccag tggtcctgga ggctgaggca     360
gacacagagc ctgtctactc agggccagcc aggggccccc acacctgacc tcagtcctgc     420
catggcagga agtcttggga gcaggtgagg ccaggggcat gcacactaac acataggaca     480
ggggaatgca ggggctccca gcttcctaca caggcagggt agccagggtc taggcccatg     540
taacagggac cacttcttgt tctccagtgt ccctgtgccc agcacagggc tgggcagaga     600
gcaggtacca gatatatttt tgccaaacca taacaaaatg tctcagctct gtggaaatca     660
gaccaaaatg tccaaagtga ggtgtcctag gggcagagcc cctgtattca tctcggttgt     720
aagccatact gagtccagct cacaaccaga agcgacaatc ctacacattc ccccaagtgc     780
agaccaccac tggtctggtc atctctagcc ataagtccca cttactcccc acaaggctgg     840
agcctctttc ctcagccctg ggttcctccc ttcttttatc catggtcctg atagtttcac     900
tgttcccact cacacatgtg gcctccacc tcatccaagc accacccttg cccagccctc     960
atggcaaact ccattggtcc tcctagtgca tctatccctc acatcatgtt gctgctgcag    1020
ctgctccaaa acctgcactg agtccctggt gctggcctca ctgatgtgta ctgtgctgt    1080
ccaacacagc agccgtcatc cacgtgaggt tacttaaatt taaagtttta aaaattaaca    1140
attcgatttc tcagttgcct cagccacatt tcaagagttc aatgaccaca tgtggctaac    1200
ggttactcta ttggacagca caaaggtaga acattccac catcatataa agttctatta    1260
gacagcgcag gtctagagtt tcgctctgca gcactgcctt agccagcact ccctactctg    1320
ccgttcagtc tcttatctcg ccccaaacag accctctact cccgccacaa acccctgtgg    1380
gtctgcacca cgcctgctcc tcgggaaggt gattttcccg acctcgggcc ctcggtgggc    1440
ctccatgatc ggtgcccctt cactaccaga gtagttgaag atctgattaa atgcagtcat    1500
tcatttgatg agcagacctt ccagacaccc actccgggtg tcagttgctg aggacccagg    1560
tgagaggcgg accttgtccc cgcccgggga ctccctgtca cggctatccc gtccaacctc    1620
gccggggtat ccgggctcag aactgaacct actccgtctg ggagcccaag gatggctccc    1680
ccaagtcgcc cccgcctggc cccaagctcc agaggacctg ccagaccagc ttccgctcgg    1740
```

```
agtttcgcac tcagatcccg gcgctgcagg tgccctcgca ctggactaaa ctggaccgcg    1800
aagggaatag ccggaacccg ccaggctcag agccctgccg cccctcactc accccgagcc    1860
tcggccgccg cgacccggtt cacaacatcc gcccaacctc tc                       1902
```

<210> 9069
<211> 1087
<212> DNA
<213> Homo sapiens

<400> 9069
```
tttttttttt ttttttttat tatactctaa gttttagggt acatgtgcac attgtgcagg    60
ttagttacat atgtatacat gtgccatgct ggtgcgctgc acccactaat gtgtcatcta    120
gcattaggta tatctcccaa tgctatccct cccccctccc ccgaccccac cacagtcccc    180
agagtgtgat attccccttc ctgtgtccat gtgatctcat tgttcaattc ccacctatga    240
gtgagaatat gcggggtttg gttttttgtt cttgcgatag tttactgaga atgatggttt    300
ccaatttcat ccatgtccct acaaaggata tgaactcatc attttttatg gctgcatagt    360
attccatggt gtatatgtgc cacattttct taatccagtc tatcattgtt ggacatttgg    420
gttggttcca agtctttgct attgtgaata gtgccgcaat aaacatacgt gtgcatgtgt    480
ctttatagca gcatgattta tactcatttg ggtatatacc cagtaatggg atggctgggt    540
caaatggtat ttctagttct agatccctga ggaatcgcca cactgacttc cacaatggtt    600
gaactagttt acagtcccac caacagtgta aaagtgttcc tatttctccg catcctctcc    660
agcacctgtt gtttcctgac tttttaatga ttgccattct aactggtgtg agatgatatc    720
tcatagtggt tttgatttgc atttctctga tggccagtga tgatgagcat ttcttcatgt    780
gttttttggc tgcataaatg tcttcttttg agaactgtct gttcatgtcc ttcgcccact    840
ttttgatggg gttgtttgtt tttttcttgt aaatttgttt gagttcattg tagattctgg    900
atattagccc tttgtcagat gagtaggttg caaaaatttt ctcccatgtt gtaggttgcc    960
tgttcactct gatggtagtt tcttttgctg tgcagaagct ctttagttta attagatccc    1020
atttgtcaat tttgtctttt gttgccattg cttttggtgt tttggacatg aagtccttgc    1080
ccacgcc                                                              1087
```

<210> 9070
<211> 523
<212> DNA
<213> Homo sapiens

<400> 9070
```
agaaaataca actggttgct tgctttttata ggaattttcc ctggaggcca cacgaaacca    60
cttgtgcctc agaacaactc atgactgggg gagtaaggac aagcagtata tccattggct    120
tctttctgtg tctcgtttct tactggttaa tgtctactcc tggggtattt cacttttcca    180
cacttcttag ttatgtttcc tggcctcttt gaggagctgc tgggaagaca gagctttaat    240
tggtcctgtt agagttatga acaggaatgg tggtttgtct ctcttttctg ggaagataca    300
taactccaga aactgtgaga gtcttttctg gggctacaag acaagtggct gaagccaggg    360
gtgaggtgag aggtgatagt gtggttggtg ggtgtgcaag cagggccaag caaattcaag    420
gtggggcata ttctaggact tacacaacag tctggaaata aatatgtatt ttagaatatt    480
gagattctaa actaagaatg atgtcttacg taaaattaca aaa                      523
```

<210> 9071
<211> 470
<212> DNA
<213> Homo sapiens

<400> 9071
```
ccgttaacgg gattctggaa tttgttagga taattgcttt tcaatatcaa gagatctggc    60
aatcaaattt aataatatca agcttgcttg gtgagcatgg atttataaga tagaatggtt    120
tgtgggggag aatatagtta caaaaaagat tattgtttcc cataatgcct ggtattgtat    180
taagtacttt gcatacagta gggcatttca ttgtcccagt gatcctcctg caaagtaggt    240
acaattatct tcaatttaca aatgaggaaa ccaagctctc ttcaagctga taagatgctg    300
aactgagatt tgaaccaagt ccctctgccc ctaagagccc ctaccctag ctgctactat     360
```

```
atgctgtacc catctaagct ttgtgaaata accttgttcc actgcagaga agatgttgtg     420
tcacctatct ctagtatttc ttggctttgg gcagttctgg agtcaaaatg                 470


<210> 9072
<211> 2327
<212> DNA
<213> Homo sapiens

<400> 9072
gcctttttgt ctgtctttat ttacagcaaa gtacataata tgtggtcact ttgtaaccac      60
taacaataaa ggtagggtgg taaaaagaaa agggagagga gcaagcatct taaaagggggg   120
gaaaaaaaag cctaagtctg tatttagcta ctcaccctgc tcctgaggca ggactgggta     180
ggcactccct gcctctaaga ccacagccaa gctgacctgg aatgccagtc cccggtatga     240
ggaaggcagc agaacgccca gagacaaaag attaaagggg actgagctct ggatgcatcc     300
acttatgctt tgccagacag ttcccttcct tgttttgttt gaatgcttcc cccaccccgc     360
cctgagcaaa gtgtaaaggg caacggtggt acagaagtac aggcagtccc ttccagaagc     420
agtcctgaac cgcataaccc acctacctag ctgctcctca gcctgccgag ttcttggccc     480
tggaatcttt aacaggcaca taggagattc cagggcaggg gaaaatattt ccctgcaaga     540
ggctacttcc ctccaacagc tgtgagggcc agtgcaggtc aaggttgcta aatcaaggaa     600
agtgcacaag ggcaagagag gtcatataca aaccaaccag gcttccggcc ctcctgctgc     660
ccgactgctc cgaggtgtac acaagcctcc agcccgaccc agcggcctaa tgaaactctg     720
gcaacctatc ctgggcgtgg ccacaagtat ccagctccaa gcccaagtga ggcggggagt     780
caacttcccc atgattgcca agtggccaag accagaagca gggatgatta ggctagttct     840
gcggcaaggt gaactggaga ccctgtctct gccctccttc cctggcctgt cccacagaca     900
tcccgttgtt taacccactg cctttgcaag gacctgctct gtccactcca aatcaaagga     960
tacttgcatc cttcttacac agactcccat ctctctgctc atagtggtcc caggctgccc    1020
gagaaaaaga aacttgggtc agtagaaggc tcattagtgt gaaggagtga gaggccaggc    1080
cttcctgtga cataatgctt ctatgcttgt ttcctaaaca cttggtccac acacaatacc    1140
tgggcaggaa gagagaacca agcaccactg gatggctctg agccagggg acttctatgc     1200
acatacaacc aacatcaccc cactctgctc atctgtgcct ccaccctgaa cagcagagta    1260
cctagatggc aaatgtcatg gtttctggtc cactaattct actcctgact ctccatggaa    1320
tcagagaccc agaggctctt aaaaaactaa gaccattgtt tgttccatag aaagctcaag    1380
ttcagataca gagttggcca aatgctgggc tgccacggag gggtagagcc ttccatccct    1440
tccttgttcc agaaacagtg tgtcacagac cccagcagac actgttcatt gtccccagcc    1500
aagccaccaa gaattggtga tcatttgaca aggggcaggg cagcccttat agctgtttcc    1560
aagctaggag tgggctattc agagatattg gaggcttggt cccaacacca caggtagatg    1620
aggaagcagc taggtaaagg ctcagagatg agaggagtcc atcttccaag gcagtgggat    1680
aaacagccaa ggcactaaat ggtttggcac ctgggagctt caagtaaagt tgagcatgct    1740
gcccactgaa aagccaaggc tctcccagac acgggtgggc ttcacctgag cacagcccag    1800
tgccatcaag gccagggggcc ctgtgtcctc aggatactaa cccaggcctg cattccctgc    1860
ttcatctcag aactgatcaa ggcatgacta caaggataat gattgatcct gaactgatct    1920
tggtgagcac cggctttcaa aggaggcatc ttgggagcct tcccttgctc caagtaggcg    1980
gctgctgtga ctgggagctc ccttcagagc ctgcacggtc tcctgaaagt ctccgggtgg    2040
caagctctgc tggggaccag gtttgacttt ttaaaatagc aaaacagatt tagagtcaaa    2100
ctgagcccag aaacggggaa tcagactgga tggtgctgag tctggggggaa aatctggtgt    2160
gaccaggtaa taatggagac caatttacct gaatggctcg aacaggctct gagagcaatg    2220
ggaagaaaag gttctccaaa atgtttctgg caatggcagc cacagtggga tagctaaggg    2280
cacagtccac caagcactag ggtggtcaac aatgaaatga acatctc                 2327


<210> 9073
<211> 131
<212> DNA
<213> Homo sapiens

<400> 9073
tatttatttt gagatggagt ctcgctctgt cgcccaggct ggagtgcagt ggctcgatct      60
cggctcactg caacctccgc ctcctgggtt cacgccattc tcctgcctca gcctcccgag     120
tagctgggac t                                                          131
```

6649

<210> 9074
<211> 126
<212> DNA
<213> Homo sapiens

<400> 9074
ttaagatttc taactacatt tacttccttg acgaagcttc ggccgtgcgt agactggtca   60
gcttccgggg tgactagagc agggctgtgg tcactttcac tggcatctgg gtcctgtcgt   120
aggatc   126

<210> 9075
<211> 531
<212> DNA
<213> Homo sapiens

<400> 9075
cctgtatcac tcgagaagcc ctgtatgtca catttattat tcctttttaga cacatcctca   60
gccaagtgta gtaaatgtcc acactccctc cctgcttccc tcccttcctt ccctctttt   120
tcaagaagag gaggtttgtg ttgccttcag atgactgttg atttaattga caggcagctt   180
ttcttcattg tgtgcttttt gcttttgctc acaaaagtgc attcactatt ctatagtatg   240
ttgaaacttt taaatggaaa cggcttttca ttaacaaagg aagcattttc ttcccccctt   300
ccatgcctta gctttctccg ctaagtcttg gcttcttcag cagctgtacc tccaccagaa   360
atgacaaaag gtgcaattgt gctaggagat ggcgatgaag atatgccagt ggagttttgt   420
gtgtgggctg ctggggactg ttttccttct gtgtttggtt ttgtttatt tttgttattc   480
cagaaagttg agagcacatc taaaaaccaa aaaaaaaaaa aaaaaaaaaa a   531

<210> 9076
<211> 531
<212> DNA
<213> Homo sapiens

<400> 9076
cctgtatcac tcgagaagcc ctgtatgtca catttattat tcctttttaga cacatcctca   60
gccaagtgta gtaaatgtcc acactccctc cctgcttccc tcccttcctt ccctctttt   120
tcaagaagag gaggtttgtg ttgccttcag atgactgttg atttaattga caggcagctt   180
ttcttcattg tgtgcttttt gctattgctc acaaaagtgc attcactatt ctatagtatg   240
ttgaaacttt taaatggaaa cggcttttca ttaacaaagg aagcattttc ttcccccctt   300
ccatgcctta gctttctccg ctaagtcttg gcttcttcag cagctgtacc tccaccagaa   360
atgacaaaag gtgcaattgt gctaggagat ggcgatgaag atatgccagt ggagttttgt   420
gtgtgggctg ctggggactg ttttccttct gtgtttggtt ttgtttatt tttgttattc   480
cagaaagttg agagcacatc taaaaaccaa aaaaaaaaaa aaaaaaaaaa g   531

<210> 9077
<211> 518
<212> DNA
<213> Homo sapiens

<400> 9077
caagttaaca atgagcaaaa ttcagtaaac tagttacctc tggaggcaga gacagaggga   60
tgggatatggg aagaagtata ctagtagata caaccatatt ggcaatgttt tagttcttaa   120
gttgggtagt ggattcatag gcatttatta ttaccaggct tcatagctta cagatatagt   180
atatgtattc ttttgcattt ttcagaattt taaaggcagc taaaggatgt tgtctaaata   240
gaatttataa aagagaggag tagaagacag tatgtcatgc atgatttgtt tgtatatgtc   300
ttacatcctt aactaaaagt gtaaattaat tgagcataaa gaccgtattt aatgcttcta   360
ttttattatc tatattatag attctataag acctactata attccgtcta caaaataagg   420
actcagtctg tgtttattga ttacatgatt tgaaatagct ataaacagt aagtttaaac   480
actttatttt cagaaaaatt caaattgatc tgttggggg   518

6650

```
<210> 9078
<211> 512
<212> DNA
<213> Homo sapiens

<400> 9078
caagttaaca atgagcaaaa ttcagtaaac tagttacctc tggaggcaga gacagaggga      60
tgggatagg g aggaagtata ctagtagata caaccatatt ggcaatgttt tagttcttaa     120
gttgggtagt ggattcatag gcatttatta ttaccaggct tcatagctta cagatatagt     180
atatgtattc ttttgcattt ttcagaattt taaaggcagc taaaggatgt tgtctaaata     240
gaatttataa aagagaggag tagaagacag tatgtcatgc atgatttgtt tgtatatgtc     300
ttacatcctt aactaaaagt gtaaattgag cataaagacc gtatttaatg cttctatttt     360
attatctata ttatagattc tataagacct actataattc cgtctacaaa ataaggactc     420
agtctgtgtt tattgattac atgatttgaa atagctataa aacagtaagt ttaaacacta     480
ttttcagaaa aattcaaatt gatctgttgg gg                                   512


<210> 9079
<211> 1014
<212> DNA
<213> Homo sapiens

<400> 9079
gccaagcttc aaacatagat ctcctgactc cattcatatg accctataaa ctgtctcaaa      60
acaaaaagat aaattaatat aaatatttat tgaatatgtc tttgtagaga aagcataata     120
agcataaagg gcaatgcgtt aacctttatc acaagcaacc ctattggaat gtgtcaactt     180
atcagaatga atcaggccag aatatcaagt ataaatgaag cctgtagtta actgaaagtt     240
gcatatcaat caggcactcc agtttctctc ctcaaactct gaatattcaa tgaataagat     300
aaagaaatgg ctaatttgat tttacctttc attttttga cctaattcta aggtgactac      360
tcactcctca agatttaact aatgttgctt tattttttatc cctctgggga gacagaagag     420
atgattggga aacacatgtt tgaagtttgt aagttctgct gctttcaacc ccacagatgt     480
ctcttactgc ccacttgggc cctggtgatt aagcaactag atttggagcc agtcaggctt     540
ttgtttagac atttttaactt tttcttgctt tccttgcaaa ctcctcagcc ttcagactgg     600
ttggaaagta aatgtacaat cttacataaa ttttcaggta atagcatttc agctttttcc     660
ccaagatttt ttgcttggga ggagacagat tagactggat tcggagtctt gattttgcaa     720
aggtaacaaa agacatgttt ttttataaga cttttcatca taagtttatt ttattcaaca     780
gaagcaaaat ctaatataat ggaaaaaata aagatctgtg ataaatctga tctgtgtgga     840
taaacacaat tagaaagact taaagattaa gtattgaaac aaactaccaa aatatttaa      900
tactgatttg taaaaatttc agtacatttt tcttcttgc ttaattctac tgggtcctgt      960
ttttcatcaa aacattctat catgttagta tacaatagcc aaaaaaaaaa aaaa          1014


<210> 9080
<211> 1015
<212> DNA
<213> Homo sapiens

<400> 9080
gccaagcttc aaacatagat ctcctgactc cattcatatg accctataaa ctgtctcaaa      60
acaaaaagat aaattaatat aaatatttat tgaatatgtc tttgtagaga aagcataata     120
agcataaagg gcaatgcgtt aacctttatc acaagcaacc ctattggaat gtgtcaactt     180
atcagaatga atcaggccag aatatcaagt ataaatgaag cctgtagtta actgaaagtt     240
gcatatcaat caggcactcc agtttctctc ctcaaactct gaatattcaa tgaataagat     300
aaagaaatgg ctaatttgat tttacctttc attttttga cctaattcta aggtgactac      360
tcactcctca agatttaact aatgttgctt tattttttatc cctctgggga gacagaagag     420
atgattggga aacacatgtt tgaagtttgt aagttctgct gctttcaacc ccacagatgt     480
ctcttactgc ccacttgggc cctggtgatt aagcaactag atttggagcc agtcaggctt     540
ttgtttagac atttttaactt tttcttgctt tccttgcaaa ctcctcagcc ttcagactgg     600
ttggaaagta aatgtacaat cttacataaa ttttcaggta atagcatttc agctttttcc     660
```

```
ccaagatttt  ttgcttggga  ggagacagat  tagactggat  tcggagtctt  gattttgcaa      720
aggtaacaaa  agacatgttt  ttttataaga  cttttcatca  taagtttatt  ttattcaaca      780
gaagcaaaat  ctaatataat  ggaaaaaata  aagatctgtg  ataaatctga  tctgtgtgga      840
taaacacaat  tagaaagatt  taaagattaa  gtattgaaac  aaactaccaa  aatatttttaa     900
tactgatttg  taaaaatttc  agtacatttt  tcttctttgc  ttaattctac  tgggtcctgt      960
ttttcatcaa  aacattctat  catgttagta  tacaatagcc  aaaaaaaaaa  aaaaa          1015


<210> 9081
<211> 1142
<212> DNA
<213> Homo sapiens

<400> 9081
gtttgttttc  tatttttctc  atatattgct  tgttcctcag  tccttctttt  cctgatttct       60
tttacgttaa  atgtttattt  taccatttta  attctgttgt  cttttaaag   ctacatttct      120
ttgcattctt  cttataatga  ttactatagg  gactataata  tgtgtattta  atttatcaca      180
atgaaaacta  tttgcgaatt  aaccttggtt  ttacatatat  aaatcttgca  acactaaagt      240
tctgcttacc  tcccgtctat  cctttggtgc  tatagttgcc  atatacatta  catctatatt      300
ttttaaaaca  caaaatgcag  tgctacaagt  ttgtctttaa  gaaactaaga  acagtatgaa      360
aaggatgtta  aaatatctgg  gtagttatta  aaataaatta  tctctaaaat  gaattttgta      420
atctattatt  ataattttac  tagttagaat  tttcaattgt  tatttttat   atctttaaga      480
ggtgaaccga  gtatagagta  tagaacaaga  aaaatgtcag  gcagtcagct  ggactcactt      540
gttccctgga  cgaatctgtt  tcagttaaat  gacagatcac  cataatcata  tggaccttca      600
ggttttccca  ccaaaaggcc  aaactgaaaa  tacgaaattc  ctgacccata  aatatcttac      660
tgcattgtaa  atcatttagc  attcattaat  cactatttac  aattttttaa  aaaaaataag      720
gcttgtgcct  tttctcatct  gtttagaata  ttcagtttag  taactgtatg  gcaacgtaag      780
ttactgacag  ggaaagcctt  gtaagacagt  actcatttac  ttaaaatgtg  gagttttttgc     840
atttctttac  aattgaatgg  aaaaattacc  agcagtgctt  tgggttatag  tgacacctgg      900
tggtacggtt  tgaggtttta  aaaaaattct  ttttaaattt  gttactcttt  ttttttttcta     960
gaccattttt  tgtaaggaat  cattttatca  actaggatga  caagaggcct  ctcccatcct     1020
ggttgcacat  cactttctat  aacagagaga  catgggccag  aagccctgat  ggagaaagca     1080
gccaatgtcc  cttacatttc  cacctttggc  ttgaaaaaaa  gatctgtgca  ctaaatacag     1140
gg                                                                        1142


<210> 9082
<211> 1142
<212> DNA
<213> Homo sapiens

<400> 9082
gtttgttttc  tatttttctc  atatattgct  tgttcctcag  tccttctttt  cctgatttct       60
tttacgttaa  atgtttattt  taccatttta  attctgttgt  cttttaaag   ctacatttct      120
ttgcattctt  cttataatga  ttactatagg  gactataata  tgtgtattta  atttatcaca      180
atgaaaacta  tttgcgaatt  aaccttggtt  ttacgtatat  aaatcttgca  acactaaagt      240
tctgcttacc  tcccgtctat  cctttggtgc  tatagttgcc  atatacatta  catctatatt      300
ttttaaaaca  caaaatgcag  tgctacaagt  ttgtctttaa  gaaactaaga  acagtatgaa      360
aaggatgtta  aaatatctgg  gtagttatta  aaataaatta  tctctaaaat  gaattttgta      420
atctattatt  ataattttac  tagttagaat  tttcaattgt  tatttttat   atctttaaga      480
ggtgaaccga  gtatagagta  tagaacaaga  aaaatgtcag  gcagtcagct  ggactcactt      540
gttccctgga  cgaatctgtt  tcagttaaat  gacagatcac  cataatcata  tggaccttca      600
ggttttccca  ccaaaaggcc  aaactgaaaa  tacgaaattc  ctgacccata  aatatcttac      660
tgcattgtaa  atcatttagc  attcattaat  cactatttac  aattttttaa  aaaaaataag      720
gcttgtgcct  tttctcatct  gtttagaata  ttcagtttag  taactgtatg  gcaacgtaag      780
ttactgacag  ggaaagcctt  gtaagacagt  actcatttac  ttaaaatgtg  gagttttttgc     840
atttctttac  aattgaatgg  aaaaattacc  agcagtgctt  tgggttatag  tgacacctgg      900
tggtacggtt  tgaggtttta  aaaaaattct  ttttaaattt  gttactcttt  ttttttttcta     960
gaccattttt  tgtaaggaat  cattttatca  actaggatga  caagaggcct  ctcccatcct     1020
ggttgcacat  cactttctat  aacagagaga  catgggccag  aagccctgat  ggagaaagca     1080
gccaatgtcc  cttacatttc  cacctttggc  ttgaaaaaaa  gatctgtgca  ctaaatacag     1140
```

<210> 9083
<211> 7024
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (6957)
<223> n equals a,t,g, or c

<400> 9083
```
cctcatccct ccctcggacc cacttctgag actggtttcc caagcagaag tggagatgga    60
catcagaccc tcgtgagaaa ctcagaccag gcatttcgga cagagttcaa cttgatgtat   120
gcctactccc ctttgaatgc tatgcctcga gcagatggac tgtatcgagg atctcctcta   180
gtgggggata ggaagccttt acatttggat gggggatatt gttcccctgc agaaggattt   240
tccagcagat atgaacatgg cttaatgaaa gacctctctc gtggatcctt gtcacctggt   300
ggtgaaaggg cctgtgaagg agtcccatct gccccccaga acccaccaca gaggaaaaaa   360
gtaagtgttt catgttatat cggcgaactt ttcaagaatg ttaaccaagt agtttagtag   420
atattcataa gtttctgcta tgtgttccgc actactctca gacaagtgag acatagtctc   480
tgccaaatcc agtgaaagac aggctgtttt agtacaactt ggtgaatgtt gtaaatattc   540
agcaaatgta aatgcctgta tgtgccatat acttgctagg caattgagag gttagaacag   600
tgaaaaagaa attttaccta ttatttagtg tgtcccaagt tcgaggcact gtattaagct   660
ctttaaatgt gttttatcct cacagtaagc ctataagata ggcaattttc tattttgcac   720
atgaggaaac taaggcaagt tgagtaactt tcccgtggtc acacagctag taaatggaag   780
gaccaggata ctacccagtt tgagagagaa ggctggagtg agaggcagca ggttactgat   840
ttaactgaat ctcaaacaat aagtaggagt cagccaacca acaattgagg gtgaggtatg   900
ttacagtaga gggagtagaa caggtaatta ggtggcactc cattggccag gcagcaggca   960
tgcagtatgg tgcaaacagt tggatgttgt tgtatcaggt ggaaggccgg gggagccagg  1020
aggaaagtgc agagagtgct gggctgggcc aggccataga gagcttgcta atgggttggg  1080
actccacttc caagtaatgc ctgatcaaga agtcacaaag ccaaaaatat gcttttgtat  1140
aagtggttct caactagggg tgtttgagaa tgagtaggag tgttttgaat tgtcccagtg  1200
acttgcattt attgagcagg gccagggatg ctgaatgtcc tgtatagggg acagtcccat  1260
gtaatggcca aacatctgta gtatcctcat tgaaatgaaa cctagtggtt tttttatatt  1320
ttcattataa tgatattacc agaatttatt aacttctttc caaaattatt tctagaaaat  1380
gcatatgcaa aactgtctat attttgttc catttggaca gaaaaatgag aaccctaagg  1440
ggatagaagg aggaggaaac attggcagat aatttggatt aagataataa ttgatttcga  1500
agattgttgc gtgaacagca ttgactacca gaaacaaaca tgaaacaat ctttggattt  1560
ctggttttat aatatttact atgtgcaaaa gtcatagaaa ttatgatatt ttatttcaga  1620
aacacttctg aaatttattg ggcacattta agcataaatt taagcatatg ccaaattctg  1680
tgctggatgt aaagataaa aagccagata aacttggcct ttgccttcct agaacttata  1740
gtttagtcag ggagcaatca aggcatggta ataggttcta cggcctgtgt aagcaatgtg  1800
ccagaacaac aaagagaagg tgtctaggca gggcacggat tatggtgggc agggtgggat  1860
gggaggtctg ctgtcaggaa agaatgagca agcattaggg agatgaaggg gaagttaggg  1920
agaagttacc aagttgtttt ctagagctag cttgctaaaa ttataaactg gaaataataa  1980
tttcctctct ttttacatta attacatcta tgtgtaagac agaaacagta ataaattcct  2040
atttatatct tgaaaatttg aacatattta agtatcctgg agcattgggt tttttcttctg  2100
ttttgtttttg tttttccttc tctctctccc tctctctctc cacctacctc tccccacctc  2160
cctctcctcc atctccttct cctctccctg cttctttctc tcaaacagct aactctaggg  2220
gttcccaagg agtacagaac agccatcagt cacctgggag gcttttaaa ctatacaagc  2280
ttccaattct cccttctcta ggtacttcca ttgttgcaaa taactgtgat agcatgcttc  2340
tgttactgtg taatggtaac ctcacaagtt tttctgaagg cagaaaaaaa gatggtggtc  2400
taattggcaa acattcttta gagacttgcc tcctagttta ttatcttcct cttaccaatt  2460
tccagctgcc ttaaatatgt agctgtgctc agatctcttt catactcccc aaaaaaagtt  2520
atcagggttg gtgtctgctt tgtttgcgtg gcttggctag tggtttacta aggtaccatc  2580
tttccttctt tccctgttgc tggtgatcca ctaatgatat ccagatagag taccgttttt  2640
tgtttgtttg ttttttcctt tctaggtatc cctgctggag taccgaaaac ggaaacaaga  2700
agctaaggaa aattctgctg gtgggggagg tgactctgca cagagcaaaa gcaagtctgc  2760
aggagctggg caaggcagca gtaactccgt ttccgacact ggtgcccatg gtgtgcaggg  2820
```

```
atcctcagcc cgaactccat cttcccctca caaaaaattc tccccatctc attcctctat  2880
gtcccatttg gaggcggtaa gcccatcaga ttccagaggc acttcttcat ctcactgcag  2940
acctcaagag aatatcagca gtaggtggta agtttatatt tgatgttta tagttaaatt  3000
ggggggtgggg gggagtatat atctaagatc attcccagtt ttacctaaaa tctatgggaa  3060
cacttgatgg gaacatctga gacagccagc caacagtacc atctgtcctg ttcagctgat  3120
ttaataatgt cagctgcaac ccccagctt tgcagaatta agaattacca acatgcctgt  3180
ggagcagtgc tttggatgac atgtagttat ggatgcagat gagctctttc atttggtggg  3240
cactaacact gcctttccta tttctcattt cacatgaaag gtgagtcaag aatccagcca  3300
agttccacat gaattaacaa cagatgtctc tcttccacac agctagcata tacagagcaa  3360
aaagacattc tgaaaggatt tgtctggttt aggggagacc acaaatttaa aaatgaataa  3420
tactggtggc aaatactgag gatcaaatgt gtgaaataga gaatgaagca caggagttca  3480
gggatcttga actgaaaaaa ataagtctgg gaaagaacag tcctggctca aatgtttcat  3540
gttcattaat ctatgaaacc tttattaaac cagtactgtg tatcaggcac atgatttcct  3600
aaaggagaaa ttttaacatt ttaaatgggg gttaagggaa gttaacatct ttaacccact  3660
ttttccttga tttcttttc tttaaagtg gttgttgttg atgtttctct tttgtgcctg  3720
acatagttgg aggcagagga aatacgttgt tttaaattgg ttctgaagaa agtaatgttt  3780
aagaggatgt tttaagaaaa tacactgtgc actggttagg gcttcatttg ttttggttaa  3840
gtcctgtggc ttgaacttgc accctgttgc ctttacagga tggttcccac atcagtagaa  3900
cgactccgag aaggagggag catccccaag gtcctccgaa gcagcgtgag ggtggcccaa  3960
aagggagagc cctctcccac atgggagagt aacatcacag agaaagactc aggtgagccc  4020
atggccttct gctgccacca cattcaggga cacatgagcc gagtcctgta cagttcatgc  4080
ctagtgctga gttgaggtga gtcagtttct gatgcagttg ggctccaccg catgctaggt  4140
tccagcccac ttatgctcat ttgggctacc acatttgtaa gatctagcat tgcttgctct  4200
ctgtctgctc ttttttcccc aaggaatacc tttctgtaac tctcatctct ccaaagtcct  4260
ggaaatctac ctcgatgaag gatgaagaga aagaagacgg gaatcacatc aggcatttag  4320
aacatagccc ataattaacc actcattttg cccttctggc atgctgcact cacccaattt  4380
gtcacaaaga gagcagtacg ggttggtgat ggcactggtg atttaaatga aaaatggctc  4440
tttcttactt attctaagaa gccagttga ttttttttta tatatgttac cttccagacc  4500
ctgcagatgg agaaggccca gagacattaa gctcagcact ctctaaagga gcaacagttt  4560
acagcccttc cagatacagc taccaggtga gatgagaaat tgctggtctc tagccatagg  4620
agtgtgttct gggtcccaaa ttgtcctggt catcctttgc cattgagatg ctgtctttgc  4680
atatagtttc agcagccttg gaaataagtc atcatctgct tgtcctcagg taataaatta  4740
tgccagaaga tgaatacggt gatcaaagac agacattta ctgcctttgg tttcctaaaa  4800
agaatacatg gttaaaagat gaagaaaaaa gaatgtaggg tattataaat gttcaccagc  4860
catttaaggg acttgttcgc gtccttattc gtttcctccc aactttgtct agctcctgca  4920
gtgtgatagt cctcggacag aatcacaaag cctccttcag cagagttcct cccccttcag  4980
aggacatcct acacagtctc caggatacag ttatcgaact actgcactga gacctggaaa  5040
ccccccctct cacggttctt cagaatcatc cctctcttcc acgtcctatt ccagccccgc  5100
ccacctgtg tccacagact cgttggcccc atttacgggg acaccaggt attttagcag  5160
ccagccacat tctggaaaca gcactgggca gcaatcttcc aaggaggagc tgcccttcta  5220
gtgctgctag ccctaccctg cagggaccct cagactcgcc aacctcagat tcagtttctc  5280
agtccagcac aggaactctg agttccacct cctttcctca gaactctagg tcgtcattgc  5340
catcagactt acggactatc agtctgccca gtgctgggca gtcagctgtc taccaggcct  5400
ccagggtatc tgcggtttcc aattcacatt tctacccaca ccgtgggagt ggggggtgtgc  5460
accagtaccg actccagcca ctgcaagggt caggagtcaa gactcagacg ggactttcct  5520
agggcttctg gatttgggca aacagaactg aatgagccca tagctgcttc cttccagctg  5580
cctctggaac ctaggccgag catattgctg aggaacgggg ggtacaaggt gccagaggat  5640
tgggtctggt ggacaagaaa caagacttgt ggtcacaatt ggcctctggc cttggagaaa  5700
gctgtaaatc ttgtctgaag cagagactat aaagaagttt ctccctgctg tcaagggtac  5760
attgttgaca agcaaatggt gtttcggtta gtaacggttc taagtgcaat gagttgtgtt  5820
gaagcctccg tctcccatcc ttgcctgtag cccgtagtca cttgtgcagt gaggacatct  5880
ttttaaattt aaaaaaaaaa aaaaaaaag ttttcaaagg aaaaaaagtt aaaagagcca  5940
atctcaaagc cccaagccat ctgagtactg ttagggtttt atgcacttaa gaaaaaaggt  6000
aggtatgtaa atgttcatcc taagacaacc attccaaaag caggtatctg gccaatgtgt  6060
gtccaccaag aatactgttt atctttgtct taagatcacc aagaaatagg caaggatagt  6120
aaagcttgga acctgcacca actggagggt gcctggctct ttgaagaaaa gctcatggtc  6180
agctcttgat tattcgggag cagattattt gagtagattg tctgagcctc caactgttac  6240
catcctactc ccccttccca agctatttca cagctcagta acccatgaag taagtagaca  6300
agaaaggag gaatgagaca tgatataggc caattgcatt gctacttacc agcttttggc  6360
aataaatttc attaggaagg ataccgagtg gtttgggaat gcttcgaatt ttattttttc  6420
tactcccaat taatcaggag ttgatgatcc catgagcagg accgcctcca tgattggggga  6480
```

6654

```
gcatgcactt gtgactgcag ggtaagagtg ggaagatagg tttgtggagt ggcaccgaca    6540
ggactgtgat tgtgtgtggg cctgccccac atttctctgg gggatgctta tgtgagagtg    6600
ggcccagtga aagagttacc aagccaccca caccctaac actgttctgg atgagagatg      6660
agagcagacc ggcttctccc catcagtgca ttgtgcctgt tgtacacccc tggaggagcc    6720
ctggagccag cccaggtggg gtacacaatc tttttaaatt ccatatggtt gccagcttat    6780
ttctttcact tgtttactgt aatatctggc gtgtttttat ttatctaatt ttgtattcag    6840
ttataaccat ggtaggggta gtgaatatat gacaggtgta atccctggtg ctgcagtgga    6900
ccttcttttc ttttggacaa gataatactg tgagtttccc tccttccttc cctctanttt    6960
ggtttccttt ttttcccagc cctcttgcat ccccttcttt tctaccctgt cctacaacta    7020
tcat                                                                  7024


<210> 9084
<211> 3488
<212> DNA
<213> Homo sapiens

<400> 9084
tttcatgttc attaatctat gaaacctta ttaaaccagt actgtgtatc aggcacatga      60
tttcctaaag gagaaatttt aacattttaa atggggggtta agggaagtta acatctttaa    120
cccacttttt ccttgatttc tttttcttta aaagtggttg ttgttgatgt ttctcttttg    180
tgcctgacat agttggaggc agaggaaata cgttgtttta aattggttct gaagaaagta    240
atgtttaaga ggatgtttta agaaaataca ctgtgcactg gttagggctt catttgtttt    300
ggttaagtcc tgtggcttga acttgcaccc tgttgccttt acaggatggt tcccacatca    360
gtagaacgac tccgagaagg agggagcatc cccaaggtcc tccgaagcag cgtgagggtg    420
gcccaaaagg gagagccctc tcccacatgg gagagtaaca tcacagagaa agactcaggt    480
gagcccatgg ccttctgctg ccaccacatt cagggacaca tgagccgagt cctgtacagt    540
tcatgcctag tgctgagttg aggtgagtca gtttctgatg cagttgggct ccaccgcatg    600
ctaggttcca gcccacttat gctcatttgg gctaccacat ttgtaagatc tagcattgct    660
tgctctctgt ctgctctttt ttccccaagg aatacctttc tgtaactctc atctctccaa    720
agtcctggaa atctacctcg atgaaggatg aagagaaaga agacgggaat cacatcaggc    780
atttagaaca tagcccataa ttaaccactc attttgccct tctggcatgc tgcactcacc    840
caatttgtca caaagagagc agtacgggtt ggtgatggca ctggtgattt aaatgaaaaa    900
tggctctttc ttacttattc taagaagcca agttgatttt tttttatata tgttaccttc    960
cagaccctgc agatggagaa ggcccagaga cattaagctc agcactctct aaaggagcaa    1020
cagtttacag cccttccaga tacagctacc aggtgagatg agaaattgct ggtctctagc    1080
cataggagtg tgttctgggt cccaaattgt cctggtcatc ctttgccatt gagatgctgt    1140
ctttgcatat agtttcagca gccttggaaa taagtcatca tctgcttgtc ctcaggtaat    1200
aaattatgcc agaagatgaa tacggtgatc aaagacagac attttactgc ctttggtttc    1260
ctaaaaagaa tacatggtta aaagatgaag aaaaaagaat gtagggtatt ataaatgttc    1320
accagccatt taagggactt gttcgcgtcc ttattcgttt cctcccaact ttgtctagct    1380
cctgcagtgt gatagtcctc ggacagaatc acaaagcctc cttcagcaga gttcctcccc    1440
cttcagagga catcctacac agtctccagg atacagttat cgaactactg cactgagacc    1500
tggaaacccc ccctctcacg gttcttcaga atcatccctc tcttccacgt cctattccag    1560
ccccgcccac cctgtgtcca cagactcgtt ggccccattt acggggacac cagggtattt    1620
tagcagccag ccacattctg gaaacagcac tggcagcaat cttccaagga ggagctgccc    1680
ttctagtgct gctagcccta ccctgcaggg accctcagac tcgccaacct cagattcagt    1740
ttctcagtcc agcacaggaa ctctgagttc cacctccttt cctcagaact ctaggtcgtc    1800
attgccatca gacttacgga ctatcagtct gcccagtgct gggcagtcag ctgtctacca    1860
ggcctccagg gtatctgcgg tttccaattc acagcactac ccacaccgtg ggagtggggg    1920
tgtgcaccag taccgactcc agccactgca agggtcagga gtcaagactc agacgggact    1980
ttcctagggc ttctggattt gggcaaacag aactgaatga gcccatagct gcttccttcc    2040
agctgcctct ggaacctagg ccgagcatat tgctgaggaa cggggggtac aaggtgccag    2100
aggattgggt ctggtggaca agaaacaaga cttgtggtca caattggcct ctggccttgg    2160
agaaagctgt aaatcttgtc tgaagcagag actataaaga agtttctccc tgctgtcaag    2220
ggtacattgt tgacaagcaa atggtgtttc ggttagtaac ggttctaagt gcaatgagtt    2280
gtgttgaagc ctccgtctcc catccttgcc tgtagccgt agtcacttgt gcagtgagga     2340
catctttta aatttaaaaa aaaaaaaaa aaaagttttc aaaggaaaaa aagttaaaag      2400
agccaatctc aaagccccaa gccatctgag tactgttagg gttttatgca cttaagaaaa    2460
aaggtaggta tgtaaatgtt catcctaaga caaccattcc aaaagcaggt atctggccaa    2520
tgtgtgtcca ccaagaatac tgtttatctt tgtcttaaga tcaccaagaa ataggcaagg    2580
```


6655

```
atagtaaagc ttggaacctg caccaactgg agggtgcctg gctctttgaa gaaaagctca    2640
tggtcagctc ttgattattc gggagcagat tatttgagta gattgtctga gcctccaact    2700
gttaccatcc tactcccct tcccaagcta tttcacagct cagtaaccca tgaagtaagt    2760
agacaagaaa aggaggaatg agacatgata taggccaatt gcattgctac ttaccagctt    2820
ttggcaataa atttcattag gaaggatacc gagtggtttg ggaatgcttc gaattttatt    2880
ttttctactc ccaattaatc aggagttgat gatcccatga gcaggaccgc ctccatgatt    2940
ggggagcatg cacttgtgac tgcagggtaa gagtgggaag ataggtttgt ggagtggcac    3000
cgacaggact gtgattgtgt gtgggcctgc cccacatttc tctgggggat gcttatgtga    3060
gagtgggccc agtgaaagag ttaccaagcc acccacaccc ctaacactgt tctggatgag    3120
agatgagagc agaccggctt ctccccatca gtgcattgtg cctgttgtac acccctggag    3180
gagccctgga gccagcccag gtggggtaca caatcttttt aaattccata tggttgccag    3240
cttatttctt tcacttgttt actgtaatat ctggcgtgtt tttatttatc taattttgta    3300
ttcagttata accatggtag gggtagtgaa tatatgacag gtgtaatccc tggtgctgca    3360
gtggaccttc ttttctttttg gacaagataa tactgtgagt ttccctcctt ccttccctct    3420
aatttgtttt cctttttttcc ccagcctctt gcatcccctt cttttctacc ctgtcctaca    3480
actatcat                                                              3488


<210> 9085
<211> 13138
<212> DNA
<213> Homo sapiens

<400> 9085
ctcgctatct gatggagcag aatgtcacca agttacttcg gcctctgtct ccagtcacac     60
cacccccctcc caattcaggc tcaaagagtc cccagctggc cacacctggc tcatctcacc    120
caggagaaga ggagtgtcga aatggataca gcctcatgtt ttcaccagtc acatctctta    180
ctactgctag tcgctgcaac actcctctac agtttgaggt gatttgggtt tggttgctgg    240
gagtgctgga tatgaaaatc atcatttgta ccttctcatt tcaaatataa taccattcca    300
aatgtttctt tactatcttt cttccccatc tcagtaagag aatgggaaac ctcagggtca    360
ttgtggcctg ttacctggta gcctctcatc ttggcagccc ctatgcttcc caaaataggc    420
atactgctac cacaaatccc attcatgtat cttttgcatg cagtccatca atctccataa    480
gtttaggtag taagcatgct agatctccat cgttatcttt actgtatact ttggtcaaaa    540
taggcctcta gctgcctgta gtatctgtta gtaacactag cctgagagca cagatgatat    600
tgattgattg tgtcttcgtt tctaggcctt taaataagtg aagtgtcttt cccaggttgt    660
ttggtatttt cattgtggcc ttagcagaga tttagaaaac attggggtat ggcttatggc    720
gaatgtgggt tttttccact ccaggttact ttccctcttt gttataatgt cttaggaatc    780
agaagtagac aagaggctag caacatgtat tcatgagaca aatttattac cttcactgtt    840
ggattaagtt agaaatgtct gcctcagctg tttcaaaaag taatcttgaa tcactttagt    900
gttcaggttt gggtgacagc aggtttcaat agaatccatg tatacttttt taaaacactt    960
catctattgc atgttacttt gatttgtaat taaaatggac actgtctctt ttttccttct   1020
cagaaaaatt tgttctgacc actaaacaca ctctgctgct ctgccccctt gtttgcactt   1080
ctccagatgt gttttttgag aaaggtgaac attttaacca atcttacgtt tcctattcag   1140
cttttccaag tatgaggatt cagaatactt agcttttatg agtaactaag aggcagctag   1200
caacattgaa agcagaactg tattctttct taccctagac ctctacttt ggagcagacc   1260
tctttctggg tgagggaaaa aacctcctgg ttacatatca gttatctagg gaaattactc   1320
tttaccagat tatttatgaa attctttcag ccagataata aagcagctga ttcaggcctt   1380
tctaacttga ctttgtctac ttgcaattga ctttgcagtt tgcacctaga gctttatagt   1440
aaggtatcat gagaggaatt ctccctggag ggcataagat tataggaata gagtgtcata   1500
ctttatcaat acaggtttta ttataaatgt ggaattatga aaattagaag gaggccgggc   1560
gcagtggctc acacctataa tcccatcact ttgggaggct gaggcaggcg gatcacgagg   1620
tcagtagatc aagaccatcc tggctaacgt ggtgaaaccc cgtctctact aaaaatacaa   1680
aatattagcc gggcgtggta gtgggcgcct gtagtcccag ctactcggga ggctgaggca   1740
ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagatcgc gccattgcac   1800
tccagcctgg gcaacagagc aagactccgt ctcaaaaaaa aaaaaaaaa aaaaagaaaa   1860
tcagaaggta agtcactttg caaaacaagc gggttcagta ctcagtgtgt tccttatccc   1920
ttgtagcatt tgggataact attaaacact gcaaatataa agtggttttg gttttgtttt   1980
gttttgtttt ttttaattgg tgatcatttt aataatacag tccatgcata atgttagaat   2040
accaggaggg aaggaaaata ttaaatagta aaaggtccaa ggcatggttt cacttgcaat   2100
ttaaggaaat tttacctttc tcatcaataa tagaacagat ttcaccaccc tgacccattc   2160
taatcaccat tttaatggcc atactctttg ctgtattcta gtacagagag gtggggagcc   2220
```

6656

```
ttttttgtag caaaggctgt gacacattgt gaaatatcaa aaaggtgtca cgtataaaga    2280
ccagcttagg ctgggcatgg tggctcacac ctgtaatcac agtgctttgg aaggctgagg    2340
caggaggatt gcttgaggcc aggggtttga gaccagcctg ggtaacatcg tgagaccaca    2400
tttctgcaaa aataaaatac aaaacttagc caggtgtagt ggcatatacc tgtagtccca    2460
gctacttggg aggctgaagc aggaagatca cttaagacca ggagtttaag actgcagtga    2520
gccattattg tgccactaca tgccagcctg ggcaacagtg agatcccatc tctaaaaata    2580
atttaaagac cagcttaggc caggtacagt ggcacacacc tgtaatccca gctactcggg    2640
aggccaaggc aaaggaattg cttgagcctg ggaggttgca gggagccaag actgcgccac    2700
tgcattccac attccagcct gggcaacaga gggagactct ctctcaaaaa aaaaaaaaaa    2760
aaaaaaaaaa caaccttact agattagttt ggggaaggat atttttgaga aggaaaaaag    2820
cattcaggaa aatggtgaga agtcttaagt gctaaggtga agaaggtaag aagataaaca    2880
gtggaagaga acaagatctt caggaggggga aagcatctag aaagaagagt ggaagcaaca    2940
ttgggaggac aagcttagtt agcctctcct ttctaccaga ataaccctcc cctcctattc    3000
ttgccctgag agccatactc cacccgccat ttcacacata cgtgcaccta gatgtacacc    3060
acccactgtc catgccaagt aaaattcaca gccaaaaccc tgctttgctg aagcagcctc    3120
atttccccta cctcagcatg tgcctgccac ctaggccaca gttattcaga gtctacatta    3180
ggcaccctct ccttacctca gccctagcac ccctgagtca ttgtcacact accaccttca    3240
ctctcttcac gtgttcccat ttacatcttt ccattaagca ctcactgctc agtctctgtt    3300
atgggactgc tgcctcacct gaaagtccca aggtaaagtc ctaccctctg taggatacag    3360
ggacctaagt atacacatac atgctttttc tgctctgttg ccaaaagtac aatggatttt    3420
acaaaataac attaataggg gtggctcagg tctaattaga ttatgccaag aaccaactct    3480
agcctgtgag ctagggattc catcaatcac atttcctgta actgtcattc aagaggaact    3540
ggccatctcc ctaaccatgt cagccccag cacactaatg tctcccctg gatagcactg    3600
ggagggcctg aggcatataa gagaataaag aaatgtgaca agcagaagag gcattggatg    3660
aaggaacaag gtccatgtaa ggaggaataa ggggtaggg gcccctcaat aacaaatact    3720
gtaggttgct aaactctcat ctaaaataca aagacgtata acactaaaat ttcaccagtc    3780
taactctttc cttgtatgtg cttgagatgt ttacttacag catgaaacat tataaccaat    3840
ttatccttaa atgctttcag agataccagg aagcatttta acaagtcatt ctgtccattg    3900
agatgagttc tgcagttaaa tatttcccct atgcattctt attcaacttc cccgcccccg    3960
aaaaaagtta tggctaacat ctatgcttgc ttttattttt tgttttgttt tgcttcttga    4020
cttcgagtag atgaataata acaagatgct tttccctcct ctagaacata tcctcccctg    4080
agagttcccc tgcgcatagg cccgagtccc tgtcacccga ggtagttatc acaccatctc    4140
aatcacactt ggaggctgag agtgagtgtt catgaatgtg ttcctgagtg tgtggggagg    4200
gctggggatc tgagtcagtg gggtgatggg ctggagggcg gccactcagt cacagtaagt    4260
tgaatgagtc ttcctgtgtg actgtgacta cacaggactg tcaatgtaga tggaggaaaa    4320
tgaaggtagg agcgtgtgtg tttgtgtgtg tgtgtgttgt gtgtgtgttt ggtggggttg    4380
gttttgccg tttggggggag ggggtggctg gagttctatt aaagaataga atctagaagt    4440
caagatgctg atatgtggta ggagccttgt taaagaaagg ctaataaatc aggaaagttg    4500
agtcaaaagt tgtaagagct gtttttttgag ttgggtggtg acttatgcct tgttctaggg    4560
ttaatctaac agctctgtaa accagatgtt ttgacctttg gttgatagat tgagcagctt    4620
cttcaggaag ggaaagtcat tctgtctttc agctttccta cattttctct gcagctcctt    4680
actgggtgca caaggaaacc aagtgagtcc ctggctttct gtcacaggcc accattctgc    4740
aatggttagg atatggttgc tatacaagtg ttatctcttt aggatatcag tagagtggtt    4800
ttctcacaaa ccctactgct gtggatatgt caaactcaga ttttagtgct agagtttcta    4860
ttataagctt tcagatttag taacattaac tctgaatcta ttaatacatg ggacctttt    4920
tctcttgaag agaaagttag agtctctcag aaatagtcaa ctgaacttta accctatccc    4980
cttccaataa aaaattaggg cataattcag tgacagtcta ctaagttctg aatcagtagt    5040
agttcacagg ttaatatgaa actgaaaaag gtttttattcc actagtatát tagagatttt    5100
cttggtgttt tgactctagc ttgttaggaa agtaaagctc tctctcctca gttgttaaag    5160
attctaagat aacgtaattt gaagactgat atggtatggt atctggtttt ctggtaccat    5220
tctttgtcgg ttagctgtag ttgacctagt gttggaagtt tggaggttat gataaccaaa    5280
tagtaggtgg ggtttatttt tggtacattt cagcatttca gaatctgcag tgatgagcat    5340
tagtggtctt gtggtatgtt gacgtacatt agaggataaa gaagaattga gtggccagaa    5400
agttgtatga gaaacacagc ttctttaaca gtgaaagtga gtgaagaact ggttggttga    5460
tgtctttaat gccatcctcc tttactgaac cagtaactta agtacttgcc tttccgtcta    5520
ccttctcctt cctccacctt tttcccttcc ccccaccttc catcaatatt aatttagaaa    5580
ttgataaccc cggaagccag ttatcttaag acaccagtct catctttgtt ttgtgcatgg    5640
ggctaaggta aattcctaat tataccactt gtcccttagt gtagtacaag gtgactcagc    5700
aacctgatga aaggctaagc aggcaaaata gtcacattta gccaattacc taattctaac    5760
tttcccagta tttcccatcc agaaagactt gaaagcaatt ttggaaaggc caggattctt    5820
tagtactctg gcccatgtac actgttgcta cgtgggactt ttacagaata taatggcttt    5880
```

6657

```
atctgctcta cttccgtccc tcttatcttt ccctgttcac ctgtgtccct ctcccctcct   5940
ttctgccctt tgactttttc ctttctcccc taccccatgt ctccgttgat ttttattctt   6000
tcagctttgt caccgaaaag acctggattt ggcaaaagta ggataccttg actccaacac   6060
taacagctgt gctgatagac cttccctact caactcaggt cattctgacc tggctcctca   6120
tccctccctc ggacccactt ctgagactgg tttcccaagc agaagtggag atggacatca   6180
gaccctcgtg agaaactcag accaggcatt tcggacagag ttcaacttga tgtatgccta   6240
ctcccctttg aatgctatgc ctcgagcaga tggactgtat cgaggatctc tctagtggg   6300
ggataggaag cctttacatt tggatggggg atattgttcc cctgcagaag gattttccag   6360
cagatatgaa catggcttaa tgaaagacct ctctcgtgga tccttgtcac ctggtggtga   6420
aagggcctgt gaaggagtcc catctgcccc ccagaaccca ccacagagga aaaaagtaag   6480
tgtttcatgt tatatcggcg aacttttcaa gaatgttaac caagtagttt agtagatatt   6540
cataagtttc tgctatgtgt tccgcactac tctcagacaa gtgagacata gtctctgcca   6600
aatccagtga aagacaggct gttttagtac aacttggtga atgttgtaaa tattcagcaa   6660
atgtaaatgc ctgtatgtgc catatacttg ctaggcaatt gagaggttag aacagtgaaa   6720
aagaaatttt acctattatt tagtgtgtcc caagttcgag gcactgtatt aagctcttta   6780
aatgtgtttt atcctcacag taagcctata agataggcaa ttttctattt tgcacatgag   6840
gaaactaagg caagttgagt aactttcccg tggtcacaca gctagtaaat ggaaggacca   6900
ggatactacc cagtttgaga gagaaggctg gagtgagagg cagcaggtta ctgatttaac   6960
tgaatctcaa acaataagta ggagtcagcc aaccaacaat tgagggtgag gtatgttaca   7020
gtagagggag tagaacaggt aattaggtgg cactccattg gccaggcagc aggcatgcag   7080
tatggtgcaa acagttggat gttgttgtat caggtggaag gccggggag ccaggaggaa    7140
agtgcagaga gtgctgggct gggccaggcc atagagagct tgctaatggg ttgggactcc   7200
acttccaagt aatgcctgat caagaagtca caaagccaaa aatatgcttt tgtataagtg   7260
gttctcaact aggggtgttt gagaatgagt aggagtgttt tgaattgtcc cagtgacttg   7320
catttattga gcagggccag ggatgctgaa tgtcctgtat aggggacagt cccatgtaat   7380
ggccaaacat ctgtagtatc ctcattgaaa tgaaacctag tggttttttt atattttcat   7440
tataatgata ttaccagaat ttattaactt ctttccaaaa ttatttctag aaaatgcata   7500
tgcaaaactg tctatatttt tgttccattt ggacagaaaa atgagaaccc taaggggata   7560
gaaggaggag gaaacattgg cagataattt ggattaagat aataattgat ttcgaagatt   7620
gttgcgtgaa cagcattgac taccagaaac aaacatgaaa acaatctttg gatttctggt   7680
tttataatat ttactatgtg caaaagtcat agaaattatg atattttatt tcagaaacac   7740
ttctgaaatt tattgggcac atttaagcat aaatttaagc atatgccaaa ttctgtgctg   7800
gatgttaaag ataaaaagcc agataaactt ggcctttgcc ttcctagaac ttatagttta   7860
gtcagggagc aatcaaggca tggtaatagg ttctacggcc tgtgtaagca atgtgccaga   7920
acaacaaaga gaaggtgtac taggcagggc acggattatg gtgggcaggg tgggatggga   7980
ggtctgctgt caggaaagaa tgagcaagca ttagggagat gaaggggaag ttagggagaa   8040
gttaccaagt tgtttctag agctagcttg ctaaaattat aaactggaaa taataatttc    8100
ctctcttttt acattaatta catctatgtg taagacagaa acagtaataa attcctattt   8160
atatcttgaa aatttgaaca tatttaagta tcctggagca ttgggttttt cttctgtttt   8220
gttttgtttt tccttctctc tctccctctc tctctccacc tacctctccc cacctccctc   8280
tcctccatct ccttctcctc tccctgcttc tttctctcaa acagctaact ctaggggttc   8340
ccaaggagta cagaacagcc atcagtcacc tgggaggctt tttaaactat acaagcttcc   8400
aattctccct tctctaggta cttccattgt tgcaaataac tgtgatagca tgcttctgtt   8460
actgtgtaat ggtaacctca caagtttttc tgaaggcaga aaaaagatg gtggtctaat    8520
tggcaaacat tctttagaga cttgcctcct agtttattat cttcctctta ccaatttcca   8580
gctgccttaa atatgtagct gtgctcagat ctctttcata ctccccaaaa aaagttatca   8640
gggttggtgt ctgctttgtt tgcgtggctt ggctagtggt ttactaaggt accatctttc   8700
cttctttccc tgttgctggt gatccactaa tgatatccag atagagtacc gttttttgtt   8760
tgtttgtttt ttcctttcta ggtatccctg ctggagtacc gaaaacgaa acaagaagct    8820
aaggaaaatt ctgctggtgg gggaggtgac tctgcacaga gcaaaagcaa gtctgcagga   8880
gctgggcaag gcagcagtaa ctccgtttcc gacactggtg cccatggtgt gcaggatcc    8940
tcagcccgaa ctccatcttc ccctcacaaa aaattctccc catctcattc ctctatgtcc   9000
catttggagg cggtaagccc atcagattcc agaggcactt cttcatctca ctgcagacct   9060
caagagaata tcagcagtag gtggtaagtt tatatttgat gttttatagt taaattgggg   9120
gtggggggga gtatatatct aagatcattc ccagttttac ctaaaatcta tgggaacact   9180
tgatgggaac atctgagaca gccagccaac agtaccatct gtcctgttca gctgatttaa   9240
taatgtcagc tgcaaccccc cagctttgca gaattaagaa ttaccaacat gcctgtggag   9300
cagtgctttg gatgacatgt agttatggat gcagatgagc tctttcattt ggtgggcact   9360
aacactgcct ttcctatttc tcatttcaca tgaaaggtga gtcaagaatc cagccaagtt   9420
ccacatgaat taacaacaga tgtctctctt ccacacagct agcatataca gagcaaaaag   9480
acattctgaa aggatttgtc tggtttaggg gagaccacaa atttaaaaat gaataatact   9540
```

6658

```
ggtggcaaat actgaggatc aaatgtgtga aatagagaat gaagcacagg agttcaggga    9600
tcttgaactg aaaaaaataa gtctgggaaa gaacagtcct ggctcaaatg tttcatgttc    9660
attaatctat gaaacctta ttaaaccagt actgtgtatc aggcacatga tttcctaaag     9720
gagaaatttt aacattttaa atgggggtta agggaagtta acatctttaa cccactttt     9780
ccttgatttc tttttctta aaagtggttg ttgttgatgt ttctcttttg tgcctgacat     9840
agttggaggc agaggaaata cgttgtttta aattggttct gaagaaagta atgtttaaga    9900
ggatgtttta agaaaataca ctgtgcactg gttagggctt catttgtttt ggttaagtcc    9960
tgtggcttga acttgcaccc tgttgccttt acaggatggt tcccacatca gtagaacgac    10020
tccgagaagg agggagcatc cccaaggtcc tccgaagcag cgtgagggtg gcccaaaagg    10080
gagagccctc tcccacatgg gagagtaaca tcacagagaa agactcaggt gagcccatgg    10140
ccttctgctg ccaccacatt cagggacaca tgagccgagt cctaccgcatg ctaggttcca   10200
tgctgagttg aggtgagtca gtttctgatg cagttgggct ccaccgcatg ctaggttcca   10260
gcccacttat gctcatttgg gctaccacat ttgtaagatc tagcattgct tgctctctgt    10320
ctgctctttt ttccccaagg aataccttc tgtaactctc atctctccaa agtcctggaa     10380
atctacctcg atgaaggatg aagagaaaga agacgggaat cacatcaggc atttagaaca    10440
tagcccataa ttaaccactc attttgccct tctggcatgc tgcactcacc caatttgtca    10500
caaagagagc agtacgggtt ggtgatggca ctggtgattt aaatgaaaaa tggctctttc    10560
ttacttattc taagaagcca agttgatttt tttttatata tgttaccttc cagaccctgc    10620
agatggagaa ggcccagaga cattaagctc agcactctct aaaggagcaa cagtttacag    10680
cccttccaga tacagctacc aggtgagatg agaaattgct ggtctctagc cataggagtg    10740
tgttctgggt cccaaattgt cctggtcatc ctttgccatt gagatgctgt ctttgcatat    10800
agtttcagca gccttggaaa taagtcatca tctgcttgtc ctcaggtaat aaattatgcc    10860
agaagatgaa tacggtgatc aaagacagac attttactgc ctttggtttc ctaaaaagaa    10920
tacatggtta aaagatgaag aaaaagaat gtagggtatt ataaatgttc accagccatt     10980
taagggactt gttcgcgtcc ttattcgttt cctcccaact ttgtctagct cctgcagtgt    11040
gatagtcctc ggacagaatc acaaagcctc cttcagcaga gttcctcccc cttcagagga    11100
catcctacac agtctccagg atacagttat cgaactactg cactgagacc tggaaacccc    11160
ccctctcacg gttcttcaga atcatccctc tcttccacgt cctattccag ccccgcccac    11220
cctgtgtcca cagactcgtt ggccccattt acggggacac cagggtattt tagcagccag    11280
ccacattctg gaaacagcac tggcagcaat cttccaagga ggagctgccc ttctagtgct    11340
gctagcccta ccctgcaggg accctcagac tcgccaacct cagattcagt ttctcagtcc    11400
agcacaggaa ctctgagttc cacctccttt cctcagaact ctaggtcgtc attgccatca    11460
gacttacgga ctatcagtct gcccagtgct gggcagtcag ctgtctacca ggcctccagg    11520
gtatctgcgg tttccaattc acagcactac ccacaccgtg ggagtggggg tgtgcaccag    11580
taccgactcc agccactgca agggtcagga gtcaagactc agacgggact ttcctagggc    11640
ttctggattt gggcaaacag aactgaatga gcccatagct gcttccttcc agctgcctct    11700
ggaacctagg ccgagcatat tgctgaggaa cggggggtac aaggtgccag aggattgggt    11760
ctggtggaca agaaacaaga cttgtggtca caattggcct ctggccttgg agaaagctgt    11820
aaatcttgtc tgaagcagag actataaaga agtttctccc tgctgtcaag ggtacattgt    11880
tgacaagcaa atggtgtttc ggttagtaac ggttctaagt gcaatgagtt gtgttgaagc    11940
ctccgtctcc catccttgcc tgtagcccgt agtcacttgt gcagtgagga catctttta     12000
aatttaaaaa aaaaaaaaa aaaagttttc aaaggaaaaa aagttaaaag agccaatctc     12060
aaagccccaa gccatctgag tactgttagg gttttatgca cttaagaaaa aaggtaggta    12120
tgtaaatgtt catcctaaga caaccattcc aaaagcaggt atctggccaa tgtgtgtcca    12180
ccaagaatac tgtttatctt tgtcttaaga tcaccaagaa ataggcaagg atagtaaagc    12240
ttggaacctg caccaactgg agggtgcctg gctctttgaa gaaaagctca tggtcagctc    12300
ttgattattc gggagcagat tatttgagta gattgtctga gcctccaact gttaccatcc    12360
tactcccct tcccaagcta tttcacagct cagtaaccca tgaagtaagt agacaagaaa     12420
aggaggaatg agacatgata taggccaatt gcattgctac ttaccagctt ttggcaataa    12480
atttcattag gaaggatacc gagtggtttg ggaatgcttc gaatttatt ttttctactc     12540
ccaattaatc aggagttgat gatcccatga gcaggaccgc ctccatgatt ggggagcatg    12600
cacttgtgac tgcagggtaa gagtgggaag ataggttgt ggagtggcac cgacaggact     12660
gtgattgtgt gtgggcctgc cccacatttc tctgggggat gcttatgtga gagtgggccc    12720
agtgaaagag ttaccaagcc acccacaccc ctaacactgt tctggatgag agatgagagc    12780
agaccggctt ctccccatca gtgcattgtg cctgttgtac acccctggag gagccctgga    12840
gccagcccag gtggggtaca caatcttttt aaattccata tggttgccag cttatttctt    12900
tcacttgttt actgtaatat ctggcgtgtt tttatttatc taatttgta ttcagttata     12960
accatggtag gggtagtgaa tatatgacag gtgtaatccc tggtgctgca gtggaccttc    13020
ttttctttg gacaagataa tactgtgagt ttccctcctt ccttccctct aatttgtttt     13080
cctttttcc ccagcctctt gcatcccctt cttttctacc ctgtcctaca actatcat      13138
```

                                        6659

<210> 9086
<211> 3169
<212> DNA
<213> Homo sapiens

<400> 9086

```
gtatccctgc tggagtaccg aaaacggaaa caagaagcta aggaaaattc tgctggtggg      60
ggaggtgact ctgcacagag caaaagcaag tctgcaggag ctgggcaagg cagcagtaac     120
tccgtttccg acactggtgc ccatggtgtg cagggatcct cagcccgaac tccatcttcc     180
cctcacaaaa aattctcccc atctcattcc tctatgtccc atttggaggc ggtaagccca     240
tcagattcca gaggcacttc ttcatctcac tgcagacctc aagagaatat cagcagtagg     300
tggtaagttt atatttgatg ttttatagtt aaattggggg tggggggggag tatatatcta     360
agatcattcc cagtttacc taaaatctat gggaacactt gatgggaaca tctgagacag      420
ccagccaaca gtaccatctg tcctgttcag ctgatttaat aatgtcagct gcaacccccc     480
agctttgcag aattaagaat taccaacatg cctgtggagc agtgctttgg atgacatgta     540
gttatggatg cagatgagct ctttcatttg gtgggcacta acactgcctt tcctatttct     600
catttcacat gaaaggtgag tcaagaatcc agccaagttc cacatgaatt aacaacagat     660
gtctctcttc cacacagcta gcatatacag agcaaaaaga cattctgaaa ggatttgtct     720
ggtttagggg agaccacaaa tttaaaaatg aataatactg gtggcaaata ctgaggatca     780
aatgtgtgaa atagagaatg aagcacagga gttcagggat cttgaactga aaaaaataag     840
tctgggaaag aacagtcctg gctcaaatgt ttcatgttca ttaatctatg aaacctttat     900
taaaccagta ctgtgtatca ggcacatgat ttcctaaagg agaaattta acattttaaa      960
tggggggttaa gggaagttaa catctttaac ccactttttc cttgatttct ttttctttaa    1020
aagtggttgt tgttgatgtt tctcttttgt gcctgacata gttggaggca gaggaaatac    1080
gttgtttttaa attggttctg aagaaagtaa tgtttaagag gatgtttttaa gaaaatacac   1140
tgtgcactgg ttagggcttc atttgttttg gttaagtcct gtggcttgaa cttgcaccct    1200
gttgccttta caggatggtt cccacatcag tagaacgact ccgagaagga gggagcatcc    1260
ccaaggtcct ccgaagcagc gtgagggtgg cccaaaaggg agagccctct cccacatggg    1320
agagtaacat cacagagaaa gactcaggtg agcccatggc cttctgctgc caccacattc    1380
agggacacat gagccgagtc ctgtacagtt catgcctagt gctgagttga ggtgagtcag    1440
tttctgatgc agttgggctc caccgcatgc taggttccag cccacttatg ctcatttggg    1500
ctaccacatt tgtaagatct agcattgctt gctctctgtc tgctcttttt tccccaagga    1560
atacctttct gtaactctca tctctccaaa gtcctggaaa tctacctcga tgaaggatga    1620
agagaaagaa gacgggaatc acatcaggca tttagaacat agcccataat taaccactca    1680
ttttgccctt ctggcatgct gcactcaccc aatttgtcac aaagagagca gtacgggttg    1740
gtgatggcac tggtgattta aatgaaaaat ggctctttct tacttattct aagaagccaa    1800
gttgattttt ttttatatat gttaccttcc agaccctgca gatggagaag gcccagagac    1860
attaagctca gcactctcta aaggagcaac agtttacagc ccttccagat acagctacca    1920
ggtgagatga gaaattgctg gtctctagcc ataggagtgt gttctgggtc ccaaattgtc    1980
ctggtcatcc tttgccattg agatgctgtc tttgcatata gtttcagcag ccttggaaat    2040
aagtcatcat ctgcttgtcc tcaggtaata aattatgcca gaagatgaat acggtgatca    2100
aagacagaca ttttactgcc tttggtttcc taaaaagaat acatggttaa aagatgaaga    2160
aaaaagaatg tagggtatta taaatgttca ccagccattt aagggacttg ttcgcgtcct    2220
tattcgtttc ctcccaactt tgtctagctc ctgcagtgtg atagtcctcg gacagaatca    2280
caaagcctcc ttcagcagag ttcctccccc ttcagaggac atcctacaca gtctccagga    2340
tacagttatc gaactactgc actgagacct ggaaaccccc cctctcacgg ttcttcagaa    2400
tcatccctct cttccacgtc ctattccagc cccgcccacc ctgtgtccac agactcgttg    2460
gccccatttta cggggacacc agggtatttt agcagccagc cacattctgg aaacagcact    2520
ggcagcaatc ttccaaggag gagctgccct tctagtgctg ctagccctac cctgcaggga    2580
ccctcagact cgccaacctc agattcagtt' tctcagtcca gcacaggaac tctgagttcc    2640
acctcctttc ctcagaactc taggtcgtca ttgccatcag acttacggac tatcagtctg    2700
cccagtgctg ggcagtcagc tgtctaccag gcctccaggg tatctgcggt ttccaattca    2760
cagcactacc cacaccgtgg gagtgggggt gtgcaccagt accgactcca gccactgcaa    2820
gggtcaggag tcaagactca gacgggactt cctagggct tctggatttg ggcaaacaga     2880
actgaatgag cccatagctg cttccttcca gctgcctctg gaacctaggc cgagcatatt    2940
gctgaggaac gggggggtaca aggtgccaga ggattgggtc tggtggacaa gaaacaagac    3000
ttgtggtcac caattggcct ctggccttgg agaaagctgt aaatcttgtc tgaagcagag    3060
actataaaga agtttctccc tgctgtcaag ggtacattgt tgacaagcaa atggtgtttc    3120
ggttagtaac ggttctaagt gcaatgagtt gtgttgaagc ctccgtctc               3169
```

<210> 9087
<211> 554
<212> DNA
<213> Homo sapiens

<400> 9087
```
atgcacagtc ttctctcttt gtgtgtgact gttacaaaat ttcactttttc aaaatcgaaa      60
tcaggtgttt gctcaaatga ggggagattt tttttttttt tttttttta aatgctgaga     120
cctcagcaga gtactttttct ttttgttgtt tcccccacaa acccatcagt ctgggagagc     180
attgggagtg gaaatcatgt tgcctgggat gctggttttct ttgtatatta tataaaacgt     240
atgtaaatgt ctctccatttt gggctggggt ttgcattctc cccttggcta tttaaccaag     300
gggagaggcc agcgggcagg cggccctcac cctgcctggc acgtgcagag accccagcca     360
ctctgtgtgg gcagggtgct gtcaagacca gacctcttgg ggggtaggg gcggggggt     420
gggggaact cttggaaggg aagaagtatc acttctttct caagtggagt gtttacacct     480
tgctgtaaca tttgaacttt cacaagagat gtaataattt tgataataaa attcttaacc     540
ataataatca taaa                                                        554
```

<210> 9088
<211> 426
<212> DNA
<213> Homo sapiens

<400> 9088
```
cagctctgta aaccagatgt tttgaccttt ggttgataga ttgagcagct tcttcaggaa      60
gggaaagtca ttctgtcttt cagctttcct acattttctc tgcagctcct tactgggtgc     120
acaaggaaac caagtgagtc cctggctttc tgtcacaggc caccattctg caatggttag     180
gatatggttg ctatacaagt gttatctctt taggatatca gtagagtggt tttctcacaa     240
accctactgc tgtggatatg tcaaactcag attttagtgc tagagtttct attataagct     300
ttcagattta gtaacattaa ctctgaatct attaatacat gggacctttt ttctcttgaa     360
gagaaagtta gagtctctca gaaatagtca actgaacttt aaccctatcc ccttccaata     420
aaaaat                                                                 426
```

<210> 9089
<211> 309
<212> DNA
<213> Homo sapiens

<400> 9089
```
ttaaatgctg agacctcagc agagtacttt tctttttgtt gtttccccca caaacccatc      60
agtctgggag agcattgcaa gtggaaatca tgttgcctgg gatggctgga ttctttgtat     120
attatataaa acgtatgtaa atgtctctcc attcgctctg aggattgcat tctcccccttg     180
gctagttaac caaggggaga ggacagcggg caggcgatcc tcaccctgcc tggcacgtgc     240
agagaccccca gacactctgt gtgggcaagg tgctgtcaag accagacctc ttggggggggg     300
aggggcggg                                                              309
```

<210> 9090
<211> 1586
<212> DNA
<213> Homo sapiens

<400> 9090
```
cagaatactt agctttttatg agtaactaag aggcagctag caacattgaa agcagaactg      60
tattctttct taccctagac ctctactttt ggagcagacc tcttctgggg tgagggaaaa     120
aacctcctgg ttacatatca gttatctagg gaaattactc tttaccagat tatttatgaa     180
attctttcag ccagataata aagcagctga ttcaggcctt tctaacttga ctttgtctac     240
ttgcaattga ctttgcagtt tgcacctaga gctttatagt aaggtatcat gagaggaatt     300
ctccctggag ggcataagat tataggaata gagtgtcata ctttatcaat acaggtttta     360
```

6661

```
ttataaatgt ggaattatga aaattagaag gaggccgggc gcagtggctc acacctataa      420
tcccatcact ttgggaggct gaggcaggcg gatcacgagg tcagtagatc aagaccatcc      480
tggctaacgt ggtgaaaccc cgtctctact aaaaatacaa aatattagcc gggcgtggta      540
gtgggcgcct gtagtcccag ctactcggga ggctgaggca ggagaatggc gtgaacccgg      600
gaggcggagc ttgcagtgag ccgagatcgc gccattgcac tccagcctgg gcaacagagc      660
aagactccgt ctcaaaaaaa aaaaaaaaa aaaagaaaa tcagaaggta agtcactttg      720
caaaacaagc gggttcagta ctcagtgtgt tccttatccc ttgtagcatt tgggataact      780
attaaacact gcaaatataa agtggttttg gttttgtttt gttttgtttt ttttaattgg      840
tgatcatttt aataatacag tccatgcata atgttagaat accaggaggg aaggaaaata      900
ttaaatagta aaaggtccaa ggcatggttt cacttgcaat ttaaggaaat tttacctttc      960
tcatcaataa tagaacagat ttcaccaccc tgacccattc taatcaccat tttaatggcc     1020
atactctttg ctgtattcta gtacagagag gtggggagcc ttttttgtag caaaggctgt     1080
gacacattgt gaaatatcaa aaaggtgtca cgtataaaga ccagcttagg ctgggcatgg     1140
tggctcacac ctgtaatcac agtgctttgg aaggctgagg caggaggatt gcttgaggcc     1200
aggggtttga gaccagcctg ggtaacatcg tgagaccaca tttctgcaaa aataaaaatac     1260
aaaacttagc caggtgtagt ggcatatacc tgtagtccca gctacttggg aggctgaagc     1320
aggaagatca cttaagacca ggagtttaag actgcagtga gccattattg tgccactaca     1380
tgccagcctg ggcaacagtg agatcccatc tctaaaaata atttaaagac cagcttaggc     1440
caggtacagt ggcacacacc tgtaatccca gctactcggg aggccaaggc aaaggaattg     1500
cttgagcctg ggaggttgca gggagccaag actgcgccac tgcattccac attccagcct     1560
gggcaacaga gggagactct ctctca                                          1586


<210> 9091
<211> 313
<212> DNA
<213> Homo sapiens

<400> 9091
ttaaatgctg agacctcagc agagtacttt tctttttgtt gtttcccca caaacccatc        60
agtctgggag agcattggga gtggaaatca tgttgcctgg gatgctggct ttctttgtat       120
attatataaa acgtatgtaa atgtctctcc atttgggctg gggttagcat tctcccttg       180
gctatttacc aaggggagac gccagcggca ggcggcctca ccctgcctgg cacgtgcaga       240
gaccccagcc actctgtgtg ggcagggtgc tgtcaagacc agacctcttg gggggggtagg      300
ggcggggggg tgg                                                          313


<210> 9092
<211> 124
<212> DNA
<213> Homo sapiens

<400> 9092
tcacttgaac ccgggagacg gaggttgcag tgagctaagt aaatgccatt gcactccagc        60
cttagcgaca gagcaaggct ctgtctcata aataaataaa tgaataaatg aaagaatttt       120
atat                                                                    124


<210> 9093
<211> 900
<212> DNA
<213> Homo sapiens

<400> 9093
gctggggttt gccattttgt gtctttttta gtgttcttcc aaattaaatt ttcaagatca        60
aatatgggac tcattgtcct gtttatggag ctttttttct tttggttgac tattcttttg       120
tttcctacag tcttcaacaa ctgttagtgc ttacaatgga tacatcatgc atcttaattg       180
ataggatgga tatgataata ccttttttgg tccaaggtcc cgctcattaa aaaaaatagt       240
ttataaagct gaaaagtttt tatttctatt ttttgtaaaa tgattttcat gataggadattt      300
tatataaagg ggaagggttt tttgtatcat tttttataaca tttttgaaat gaatacttat       360
tctctttcat catctatttt agactcacag ttttatgagt aatgcagtaa aggtcatgtg       420
```

6662

```
gcacattagt aaaatatgtt ctgaacacag aaactattct ccttatcaca aattaaattt      480
tatgttaagt ttgaagagca ctggcctggg gtatactttg ctgtgaaaag atcattttgg      540
tcacttaaat tacaatagaa atatttgtgt taagaaaatt aagtaaaaat taggctgggc      600
acagtggctc acacctgtaa ttccaggact ttgggaggcc taggcaagtg gatcacctga      660
ggtcaggagt tcaagaccag cccaaccaac acagtgaaac cctgtctgta ctaaaaatac      720
aaaaattatc caggcgtagt ggcaggagcc tgtaatccca gctccttggg aagctgaggc      780
aggagaatcg cttgaacccg ggaggcggag gttgcagtga gccgagactg tgccactgta      840
ccccagcctg ggtgacaaga gtgaaactct gtctcaaaaa aaaaaaaaaa aaaaaaaagg      900
```

<210> 9094
<211> 145
<212> DNA
<213> Homo sapiens

<400> 9094

```
ctgtagtccc agcttcttgg gaggctgagg cagaagaatg gcgtgaaccc gggaggcgga       60
ggttgcagtg agccgagatc gcgctactgc actccagcct gggcaacaga gcgaggctcc      120
atctcaaaaa aaaaaaaaaa aaaaa                                            145
```

<210> 9095
<211> 1668
<212> DNA
<213> Homo sapiens

<400> 9095

```
atagatagat agatagttgg agtttggata aaaatctcga gttgagatct gagagaccat       60
tctgagggag tgtgtgagta gaagaccaag atttgaaccc tggtaaacat ggtgcaagag      120
gaagaaaatg aaggagacat tctaggtgga aggagaacgg tagtattatt gggatggtaa      180
agagaagagt ttaaagatat ttggaatagt gaattgtgtt tggcacgagg atttgtgaca      240
gccatcctta gctctgtcag ctgattatcg actggggccg ggagtgtggg cagtggagac      300
tgtttggaaa tgtatggtgg tgttggagat tgccacagtg attgtaggac actactgcca      360
cttactaggc tggggctagg gatgttgaac tttgtccagt gcacaagacc atcccataca      420
agtccaaaat ttaatagcac ctctgctgag aaatataatg ccagggatct atttcagttc      480
tccacactcc attggtcacc atgttcattc atgtctgcct tctaaacatc tcaatctagc      540
cctttcttcc cccttctcag agccactgcc atacttgagg cttccattgt ctcctgattg      600
gactatttat attgccgtaa cttcctacct tgattgtcta ttgccactct ctttgccacc      660
tcccttctgt ttaccaccag aaccgtgaat ctaaatatt tcctcttcat taaaagtgaa      720
agaacattat cacgtcattt cctgtttcat taaaagtgaa acattttta aaaggaaaaa      780
taatagccct tcaaggtctg gcgctaagct cattttctcg cagcttcacc atggtatcta      840
tcttgtattc cagctgcaga cctccacatt cctcagataa gtctttcctt ttttgtactc      900
ctttatatgt cagtgtgttc ctccttttgt ctgggctgtc atttccctta cccacataga      960
gaactccttc ctttcaagaa tcaactcctg tgtcacctac tttgccagta cgatctgttc     1020
ctctctctct ctcgctccaa aagactaatc tgcacactct gttacagcac ttgtctaatt     1080
gtgctgtagc gtttatttac atgtttgttt ctcctctagc cagtgagcac ctctcaagca     1140
gaattatctt ccttgtttct ctggcaccct aaatatttgt tgaattaata gtccttctct     1200
tcttttgtaa ttttgctttc tgtaatagaa gcttaatttt aagtatagtt atatcagtaa     1260
tcaaaatgaa tcacacactg agaaatcaat gtggatgccc tttaagggtt ctgttatttt     1320
ttttattgcc attgagtaaa ataagatact ctgtgataaa gtatattagc attaaagtgt     1380
tcaaatctga tctttattag taggcctcaa gtgaatcctt gctgacattt aaggtttatg     1440
acatttcctt cacgttcgtt cttgactgga aggcataaat ggctgacagt aaagagcaat     1500
taataatttt ccaagtaaaa cattttcagg gacatctgcc tttattgctc cccagatgag     1560
agtacagcct gtttcttatg tgttccaaag atgatttccc tatcagcttt ttggtcagtt     1620
aaccaaaaaa aaaaaaaaaa aaaaagaaa agaaaaaga aaaaaag                      1668
```

<210> 9096
<211> 2674
<212> DNA
<213> Homo sapiens

<400> 9096

```
aaataggcga gtgttgtgta taaaggaagt tgaaatcctg ggccttatgt gtgtagactg        60
gcaatgtcca tttgaagatt ttgtatttcc tcctagtgtc agtgaaaatg tgctaaaaat       120
ttcagttaag gtaagaaaac atgtcacacc tttagagcta agagttcatt gctttttagac      180
tgttttgcag ttaactacac aaaatatttg aaggattagt gtcgttatta ctactatatg       240
ctgagatgtg aagaaagatg taatcaattt atttgaataa ctgtacttat tttctggcag       300
tcttgattgc atagagtgaa atatcagtct acccacccaa ataattaaga ttctcatatg       360
ctgatatttt cttttggta gaattaagca ttagtaaata ggagaggttt ttttttaac        420
ttcatatgga cacccatgtt gctgtaatct tagacatttc tggaaagatt ccctcttttt       480
aggtttttag aagattatta agtgatttga taaaatgtct tttctcccat cattttgtaa       540
ggaagcactt ttatttaat tacatagtaa tttgtaaaag tgatactctg tcttttgctt        600
agttcttaga ctcaagtact taactttctt tgaaatatgt ttgttacatt atatattata       660
aatttatttt catgccttta aaaaactata aattattatt ctaaatatgg caatttctttt      720
agtgcatttg ttttccctaa acaataatgt tatttctatt agtgaaacta tctgcaaaac       780
taaacgtttt ttactgggaa atttagtagc tagaagaaca tttactgtga aatttaatag       840
ctatagatgt gagtactgtt accctttaat ttatgtttac ttatctttc atggaaattt        900
acaaataaag gaaacaccgt gttaccctac cattttgtat ttcagcatta ctacattgta       960
gagtgtcaaa atttaaggaa tgttttgatg tatgaaatat agttttcaaa ctaggaaaga      1020
ctatgtcact gtgcatatat tttatagttt cctcagttat cacttctctt tcacatcaat      1080
ggtgagaatt gactcagtgt attttacatt atacagaaat tttatgtatc agccaaagaa      1140
atgaaggaag ggtttttga tttgtcagat gtgatgagtt accaagtggt gtttctgtag       1200
gctatttatc atagcctgca gaaagccatt attttataca gatagatgta tgctcatcca      1260
attttataag ttctaacaac tcacatatgg aaataccgtc cttgttccaa gatgatttat      1320
ttcatatctt acttgaatat gtgtatttgg ttagcctact tgttataaga tagagttgac      1380
atttaagtat acaattaaaa gttaggaatt ttttcttcc tcagaataat ttcttttctg       1440
tcattgtttc ttttgaaaca ggaacagggt ctgttccaca aaaaagacag tgccaatcaa      1500
ggctgtgttc gaaaagttta cctgaaggac accgccacag cagaggtaaa caatttaaag      1560
agcatgcctc aattttttt agctgaaata ctttttaaa agcctcttat aatgaatacc        1620
attatttctc ccaaagctct cccaaatata actatggatg gatatataaa cttaatatgc      1680
tgtggactca gtcgggtgca agggtcttat ttttatatga cacatctgga ctgtatcctt      1740
ggtccttagc tgttggtcct gtttggagag cttcagccct tgctttcata cctttccctt      1800
caaccaaatg agcctatact tgtctttaaa attcataata agtattttac tttacagaga      1860
gcatgtaatg ccattgagga tgcacagtca acgagacagc agcaaaaatt gatgaagcag      1920
tcatcagtga gacttctcag accccaattg ccatcttaat cacagacctc aggggctcca      1980
acagggagaa aaaacaatca ctggtcttgt ctataagtca ctctgcttta tcttgctaaa      2040
gacaattttt caagcaatcc tttagtttta gttttctgga atagctagta ttgggttttc      2100
tagtttttc accttttagt ttttactcta attttgtaac catgtatatg ctagcagtcc       2160
acttctacgc caccacccaa atgggtcaga cccttgaaga aacgtcactt caaactcaga      2220
atgaaatttt cattaatatt aaaattgtga agcaaaggtc aataggctta tatttaatta      2280
aagccttact gaagaataag aaatgagctt agaatgacta gtgttctttg aaaggttttt      2340
ttattttgt tttttgggg tttttttttt tttgagacc gagtcttgct ctgtcgccca        2400
ggctggaatg cagtggtgcg atcttggctc actgcaatct ctgcctctcg ggttcaagct      2460
gttctactgc ctcagcctcc tgagtagctg ggattacagg tgtgtgccac cacgcctggg      2520
taatttttt tttttttgta ttttagtag agatgagttt caccatgttg gtcagtctag        2580
tctcgaactc ctgaccttgt gatccgcatg cctcagcctc ccaaagtgct gggattacag      2640
gcatgagcca ccacggcccg ccaaaaggct ttaa                                  2674
```

<210> 9097
<211> 320
<212> DNA
<213> Homo sapiens

<400> 9097

```
ttggcagaat tctaagatcc ctgtttcttt gacctctgtc agccagcgag ctgctcttag        60
ctcctagaag ctacccttat tccaacccaa caagggtgct ttgaatctct gacttcttgg       120
tctcttacgc agatttatag tccatgaact taggtcaggc ccacctacat aaactatttt       180
tgctcagagt cacctgtgcc ttataataac ctaatcttgg aagtaaaatc cattatattc       240
aaagtccagg gcactataca gagatatata ccagggttgg ggaatcttgg agacttgtct       300
tagaattctg tctaccatag                                                   320
```

<210> 9098
<211> 1344
<212> DNA
<213> Homo sapiens

<400> 9098
aggctgaggc aggaggattg cttgagcaca ggactttgag ggctgtagtg agctgtgatt   60
gtgcctgtga atagccattg tgctccagcc tgggcaacat agcaagaccc tgataccttg   120
ggttttttaaa aaacaaaaca agatacatgc tgacatttct ggtttggcag gcagagcttg   180
ttctgctccc caccctccct tttcccatag taaccattta taggacatct cactgttgtc   240
tactctgtgt tgcctctgct tccctgcctg gtagatctag gaatcttagg atttcttagt   300
tttagctggt gatccgtatc tttttcttaa ttccattgta acttcagctt ttcttattgc   360
ttgtaggaag gctgtttcca ttgaatacaa acaaaataaa agcttttatt cttaatctta   420
gagataggat gtttgtattt aaaaataatt gtgctgtcaa aattctgtca agttggcttt   480
taccacatta gttttttta atgtggttta tatgaccctg gagtaccttg tcttctcact   540
gttaaattct caactgagtt gtccctattt aaagtgtgag actgtgccag tttgatttta   600
aaatattgca agtgcgttat ggcaagataa aactgcaaag aaagaacctt catgtccctt   660
tgattataaa tgcttttggc acttgtttct acttttcct aatgtttttt gaggaaagaa   720
cctccaactc tccagacagg tctggggca aatgactaaa acatgaactg aggccctggg   780
ctgtctctgt gaggatatcc cctctattct ctctgaaatg tcccagcatg tggtgcattt   840
cttgttagtg tggactcctc tgtatataac acatcttatt tatcttctgt gcataacatg   900
aagtagtgcc ctaatgcaat tccaggatgt aattcagcat ttctataaaa atacagtgtt   960
tttctacatt tgcatcaaaa aataaccaga taattatatt tattaagaaa atagcatttt 1020
tggctgggtg tggtagctca cgtaatccca gcactttggg aggccgaggc aggcagatca 1080
cttgaggtca ggagtgaggc aggcagatca cttgagatca ggagttcgag accagcctgg 1140
ccaacatggt gaaaccccat ctctactaaa aatgcaaaat tagcctggcg tagtggtgca 1200
tgcctgtaat cctagctact caggagactg aggcaggaga atcacttgaa cttgggaagg 1260
ggagattgca gtgagctgag attgtgccac tgcactccag cctaggcaac agagtgagac 1320
tctgtttcaa aaaaaaaaa aaag   1344

<210> 9099
<211> 186
<212> DNA
<213> Homo sapiens

<400> 9099
tgttggattt ttttaagaa cagtgcattt ttgaatgctt ttgaaaaatt gtagtaaaat   60
acataaaaca acatttacct tgtaagcatt ttaattggta caattcagtg acattaagta   120
cagtcccagt ttagtgcaac cactgttact gtctagtttc agaacgtttt tgccccagat   180
ggatac   186

<210> 9100
<211> 17000
<212> DNA
<213> Homo sapiens

<400> 9100
ggatgaaagg attcagagga aagtagagaa actagagcaa caatgtcaga aagaagccaa   60
ggaatttgcc aagaaggtac aagagctgca gaaaagcaat caggtaaacg ttttgttaag   120
aaatgggtat tttatatagg ctataatatc tttatttct tccagtttta agctcttaaa   180
aaagtctagt cagatgatag taactgtcaa gatttctttc tactgcttta gtcccatggg   240
gtaaaatgtt aatgaattgt tatcaagtac tcttggcatt ggctttccac agagtgttgg   300
tttaggatca cagtactctt cttaggatag agtggtatcc agtttagtgt ggtccttgat   360
tctcctctaa caatgcgaac tttgaagaat gacacttcag tagacccta gttttaggaa   420
ctctttatta gcttggatat ttaggtagtc atttgctttc tctttaatcg taaaacaaag   480
taatatgaaa gcagctattg tctgaattag gttttccctt gagaaaacct ggtctgggaa   540
gtttcacaaa agtcatgagg gtatgctcca atgagaattc tagtgtaact gtaggaaaaa   600

```
ctgccttgat ctgttttgga gtaaaaccaa atcactagat tggtcctggg gctcagcagg    660
ccaaacttct tagtcactct taggtcctag acttaatctg gaacctctga atcccattca    720
caggctgggc cttatctgga atttgattcc cccctttttt ttttaagaca gagttttact    780
ctgtcgccca ggctggagtg cagtggtgtg ttcttggctc actgcaacct ccacctccca    840
agttcaagtg attctcctgt ctcagcctcc cgagtaggta ggattacatg cacatgctac    900
cacacccagc taattttttt gtattttttag tagagatttt gctatgttgg ccaggtttgt    960
cttgaactcc tgacctcagg tgatccgcct gcctcggcct cccaaagtgc taggattaca   1020
ggtgtgagct actgctcctg gccttgattt cccttagtgt agtttggaat attgtttagc   1080
tttgctgcct ctcagggatc attagttctt tagtgttagg gattagcaaa ctgattgctg   1140
ctaaagtttc aattttttag attccttttc ttaaacatat gtggctatga gaaataagga   1200
agtcagtaat ttaagataag gaatgcattt ttaagagtta aggtgacagt ttctaaatac   1260
ttttaatgca gtttttcctt ggtaataata ataatagtta agctaataaa ctctgggaca   1320
agtctgcctg agtttgagtt tcagctctgc cgcttatgaa ctgtgtaatc tcaagcaatt   1380
taaccttttc atggctcagg tttttttttta atctgtaaag tgtgttgttg agagaattat   1440
ataagtaaat acatgtaata tgcttagaac agtgtctagt ctagcacaga gaaagtcctt   1500
aataaatgtt tacagctctt ccccacctca gtttaaggtt ggaaaaacgt cccacactag   1560
attatcagca attccactgt tggcaattac aaggcattca ttgcattcaa tttccatatg   1620
ccacaggaca atcagtgtac cctgggagaa gggaaagaat attctagaaa gtaatatacc   1680
tttgccttag tagaataatt gctactttc tgttttcaaa actgggaaag aactatttta   1740
ctttatatat aaacatcact ttttaaatat ttaaaataaa ttggtatatt ttaccactga   1800
cttttttttt tttttttga ggcagagttt tactctgtta cctaggctgg actgcagtgg   1860
tgcaatctca gctcactgca acctctgcct cctgagttca agcgattctc ctgcctcagc   1920
ctcccagcta gctggggttg cagggcccac caccaaaccc agctaatatt tgtattttta   1980
gtagagattg ggttttacca tgttgtccag gctggtcttg aactcctgac ctcaagtgat   2040
ctgcctccct cggcctccta ctgacatatt ttttattctt ttcagtttag tagcaagaga   2100
gctctttaga tgtctggtcc ttttcatact tagctaattg ttttcagaat catcatttgg   2160
ggctaaatgg tgttgagtgt tttttaaaa caggatgagg agtaaacagc tttttttgtt   2220
tgcttttttg ttgattaatg tactcacgat aaatattatt ttaatagtta atggtataaa   2280
agtttgcagt ttggttaaca gattttcaga tcatgtcaca ctaatgagca tgaatttgt   2340
agatcatctc gtatataact tctgttatct ttagttagta gcaataagag tagtagttta   2400
gattataaac tgagcacact gattgtattt tatgcttatg cacatttttc ctaggttgcc   2460
ttccaacatt tccaagaact agatgagcac attagctatg tagcaactaa agtctgtcac   2520
cttggagacc agttagaggg ggtaaacaca cccagacaac gggcagtgga ggctcagaaa   2580
ttgatgaaat actttaatga gtttctagat ggagaattga aatctgatgt ttttacaaat   2640
tctgaaaagg taagtgctgt cagaggataa aaccaaatca cagcattaat aacagtgccc   2700
taattatgag ctgcaataat tgctttccag agttagactt caaatcactg agtagctgac   2760
ttattaaaag tttttattgt tctgaaatgt aaactaatac agtttcttgt agattgctga   2820
tgaagtgtta atattgagat gtttaattgg gtttcctggc attttttaa tgaaattttt   2880
tgtggcttaa aaatgctgtg gtagctgtgt tcataaatat ctctttacca tagatttctt   2940
tcaatattaa cagaatttct atagttttta aatagtgaca gtccattggg tggtggtggg   3000
gtggtctgac ctaaatcatt gataagctga gatgcttttc tgtaaagcaa taaggaattc   3060
agaacttctg gtttttatta cttgaataaa gatctcttat aaagaattaa agcagtttgg   3120
accaaggaga gctgaaaaaa attctgaatt aattgtttat gttaatcctt ttcatagcac   3180
tagtcactta ctcctggtct aagggtacat ggtattggct gctctacaat cttgaaagaa   3240
ggtaatttag ctcactttct tcccctcagg ggaaaaaaa tcaaatgtgt caagaaaatg   3300
gacattctta tggatcttgt atgtacatag caacattgtc cactcatatt gaatacagtc   3360
ttcctgaatt attccagatt tactccatag aatatttcag atagtggaat gtaaaagcta   3420
agtattattg acactcactt tgaattaagc aacacttttt tttaatagaa ctctataggg   3480
ttatagaatt tataattttt agagttcttt ggaaaatagt tatgtgtgta cagataattc   3540
ctctaaagaa aaggtgtttt tgaaaaattt agttttcaa gtacaggtgg tttttttggtt   3600
ataagaatga gttctttagt gttaaattct gagattttag tgtacctgtc acccaaacat   3660
tgtacactgt atccaatatg tagtcttgta cccttattc ccctctcaac ttccgccttt   3720
agagccccca aagtccatta tatcactgtg tatgtttttg tgtcctcata gcttagctcc   3780
cgcttataaa tgagagcata tggtatttgg ttttccattc ctgagtaact tcatttagag   3840
taatggcctc ccgctctatc caagttgctg caaaagacat tattttgttc cttttgtgg   3900
ctgagtagtt ttccatggtg taaacgtacc atatttatct ttatctgctc gttggttgat   3960
gggcacttag gttggttcca tatctttgca gttgaattaa ttttggcct agttctacca   4020
gttagccatc cttaagaact catatagtat tagattgcca attattagat aaactcctag   4080
ctgtctcaat ttctggactc tgtaccaatc accttcccaa tggaaagaaa aggaaaaagc   4140
acccacagag ctagaccagt gtgtgattgt gggaggaatt agaatgggat aagatatcaa   4200
cacatcatat tcttttcctt ctttccccct agtcattttt gttttttttaa ttgttctttt   4260
```

6666

```
ttggcatctt ggctgggtgt ggtggctcag gcctgcaatc ccagcacttt aggaggccaa   4320
ggcaggatga ttgcttgggc ttaggagttt gaaaccagcc cgggcaacat ggtgaaaccg   4380
catctctacc aaaaaaaaaa aattagctga ccgttgtggc acatgtccat agatcctagc   4440
actcaggagg ctgaggcagg aggattgctt gagccccaga ggttgaggct gcagtgagct   4500
gtgactgcca cactgcactc cagcctgggt gacagacaga ccctgtctca agaaaaaaaa   4560
gaatcttctc atattctgaa aacaaaaaca aaaacaaaaa aaaccctatt atgtgtttac   4620
ctctgtcctt acacatatgt tggttttgtt ttttttttctt tttttctttt ttttttttt   4680
tcagacggag tctcgctctg tcccccaggc tggagtgcag tggcgcaatc tcggctcact   4740
gcaacctccg cctcctgggt tcatgccatt ctcctgcctc agcctcctga gtagctggga   4800
ccacaggcgc ctgccaccat acccggctaa ttttttgtat ttttagtaga gatggggttt   4860
caccatgtta gccaggatgg tctccatcta ctgaccttgt gatccgccca cctcggcctc   4920
ccaaagtgct gggattacag gcatgagcca ccgcacctgg tctgtttttc tttttacct   4980
agaatggcag cttattgttc ctcatgtgga taatacttga tgactgtgat tatctttaac   5040
actattagca agggtagtct ctcacctcac ccaaatgtca ataactatta gaatatagtt   5100
ttgccagctt ttgttactta ttgttgtagt atgtttttaac tgactaaatg ttgtatattg   5160
taaccttaag agatatctgt gctttacaca attttttataa aataatttgc tatggaaatt   5220
caatataaac aagtgccatt tacccctata ctagttagta cattaaacaa agtttgcaat   5280
agcacaatga tgatgatgac ttcttaaaag aacaaaaact ccttatggaa gcatagagca   5340
ggctgtgtgc caagtatatt atttctgaag tgggtattaa gggggtattg gtgaggagaa   5400
aatgatggat tttgctaata caactaaatg gcatggtgag gacagatact gcagtgatat   5460
ttgtgcccat atacaacagg acagagtgag tgtttggtag ttgaaaatga tagtgacctg   5520
ctgactagga gaaaagggat gactgaagca gaaatgctat attcactata atttggagca   5580
agaagggaga agaggctctg ctgttgttat tcacagttgc ttgtcagagt tcacatgcct   5640
acttagaaaa atctatattg ggcagggcgt ggtgtctcaa gcctgtaatc ccagcacttt   5700
ggaaagccaa gatgggcaga tcacttgagg ccaggtgttc aagaccagcc tggctaacat   5760
ggcgaaaccc cgtctctact aaaaaaatac caaaattagc gggtgtggtg gtgcatgcct   5820
ataatcccag ctacttggga ggctgaggca tgagcattgc ttgaacccag gaggtggaga   5880
ttgtagtgag ccaagatcat gccaccgcac tccagtctga gtgaccgagc aagactctgt   5940
ctcaaaaaaa agagaaaata aaaaaaatct atattgatgt tcttagctct tccttcgtat   6000
ttatgagtct cactgttttt tcaaatgtaa aagaaaatga atcttcataa aatgaattat   6060
taaaattgtg ccaaagtaaa actgagaact agtttgagat ttaaagaata aatgaacatt   6120
gtaaactccc ctgaactgtt gtgtaaataa gcacagatat ctgcattaaa gaattttaga   6180
actcttgcct aagttcctta gttccacaac ttgaataaat ttacacattt ctggctgggc   6240
tcggtggctc acgcctgtaa tcccagcact ttgggaggcc gaggtgggcg gatcacctaa   6300
ggtcaggagt tcaagaccag cctgaccaat ataaagaaac cccgtgtcta ctaaaaatac   6360
aaaaattagc cgggcatggt ggcatgcgcc tgtaatccca gctactcggg aggctgagac   6420
aggagaatca cttgaaccca ggaggcggag gttgcagtga gcagatatcg cgccattgca   6480
ctccagcctt aagagatatc tgtgctttac acacaagaga tatctaggcc acaagatatc   6540
tgtggcctta agagatatct gggccacaag agtgaaactc tgtctcaaaa aaaaaaaaa   6600
agacagaaag aaaagaaata tacacatttc tatattatat ttcatcatgg ggctttacat   6660
taaactttat attttctttt agaacaagtg ttataaattc atatgatcag taatgacagg   6720
catttaactt acagtaggat atatgtggca gtatgctcta aattatttt ataaatctcg   6780
tttatccttt tcgggttcat aaacttagaa ttctgagatt tacacctggc tttcagcaag   6840
caatgattta aatttctttg gaataaactt gaactacagg tttcattggg aagggattgt   6900
ggcatcaaaa aaatcacaga atttcagtac cagaaagcta aatgtttatg ttattattga   6960
ctcattattg gtaacacccc aaatgtattc ttgttgctca taaagtttta tttgttgtgg   7020
atttttaaag gaaattttt tagggaaggg actgtgggca catgcaggga gatattacta   7080
atttcagata tataattatt ttttgatatg cctaaaagtt ttttaaatta ttgctttat   7140
ttatttttt atagataaag gaagcagcag acatcattca gaagttgcac ctaattgccc   7200
aagagttacc ttttgatagg caagttcatt tctcaagagc taatttgaat atgtggtata   7260
atttataaaa taaaatagta tctttctg tatgattttc tttgcccatt aattaaacgg   7320
aaatttattg agcacttgct ggttcattta cttgctagtt tattcacttt gtacaagatg   7380
cagtgtaaaa tagtttattg aaaaaataca gtctcttctt aatatctaaa tttaatgata   7440
ggccttgaaa taatttcagt ccctgtctcc tgaaaaaaaa tttgatgaag gagaattttg   7500
aaatcgactg aggttaaatt tggattttca tactttggac tttgagaacc aggtagggga   7560
tagagagaac acttttccta tttcctgatg aaggttctta ggcttttgga ggccttggac   7620
accttgaaa agctgatgaa cgctatcacc tttcttcagg aaattaagat acacacagat   7680
tattgtatac aatttcatgg agttttagac tctagcctat ccacagaact cttcctaggg   7740
acttcaggtt aagaacccct ttttttaaa atgcaaggcc ccagagccat tactaagtta   7800
gatttcatcc taaaataaac tatccactga gaaggaaatt ttttcatgat ttcttctagt   7860
gtatggaatg tcagactctt taataaactg ttggtaaaat agtacttcct ccatgtgaat   7920
```

6667

```
atttgaaaga aatatgattt aatatattat aaatgataca tagtaataga catataatat     7980
gttattttttg ttcatacttg aagatcttca ggaacaggta aaatatggat atattgctat     8040
acttagctta accattatct cccaaacatg taatgaattc cccctaaaaa tgtatctatt     8100
ttattctcaa ctctgattat catgaagaat tagcaataat gatcatctat cattcttaat     8160
aataatctgg tagttgccca gcattatgat ttaacttact gtaatacttt ttaaagtcac     8220
ccaccaaaac ttctctttaa ctttatgtca tttcagaatt ggactattta cttaaatggg     8280
taaaatgtct agctcaaaat aggctcataa taattattga ctgcatcccc ctaccctgtc     8340
ttcatcctat ttttccactc cagaacacac atgcatatat acatatatat atgaatatga     8400
atatgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtat atatatatat atatatatat     8460
atatgtctaa ttaggatata tattcaactc caaggcttgg tgaagaggcc aaaacaaaac     8520
cataagagaa gtatgtacct gagtggtggt gaatatgagt gtgtgtgtgt gtgtgtgtgt     8580
gtgtgtgtgt atatatatgt ggagttgaat atatatccta aatagattca attttttcac     8640
acagattaat atggccttat atgtgatctg atctactgtg actttgatac atcatttttg     8700
tataacactc tagatttttg tttccttctt catttgtctt tggcatctct tttgccagcc     8760
actctcctct ctcttcaaac aattgcacac aatcttaaaa tatttctttt tcatgctatg     8820
catttcactt agatatttga gatttgaaaa aattctactg cgtggtattt tagttttttta     8880
atttgtaaag attgaatggc tactctgcta ggcacattgc tgggtcttat catttgtcat     8940
taatatatca tcatataata tattatttga tcatcttttt cttttgaata ataatgatgg     9000
aactttattt ttaaaaatac caaccatggg aatggggagg gagacaaata atcaagtgta     9060
tttaaaatgc cagcaaataa aagtaagaac agtaagtcag ttttgggact ggctgggttg     9120
ttagtgtctt atgcagagca gttgattctt taaaaagaga attgattttc aatgtgaatt     9180
tcctaaatga gaaccagcta cctacctaca ttaagtttta tcacctggca tgcttcctat     9240
cagaattctc tcctctgatt ttgtcttttt tcttttaca ataacctttt aactttataa     9300
tggttttgga tttacagaaa agttgcaaag atagtacaga tggttctcgt atctcctgca     9360
cccagtttcc catttggtta gcatcttaca ttgccatagg atgtttatca caactaacaa     9420
acctcatggt tggttttttgt ctttcagatt ttcagaagtt aaatccaaaa ttgcaagtaa     9480
gtgatgtatt tattttacct tttttttaat aagtaaaaaa actacttgtg taaaaataaa     9540
acagcaaaag gagaaaaagc aggaacaatg tcatcttcct accctagtag gctactgcat     9600
agaagatccc tgagtttgat ttctcttccc tcaaaacaac cattaccagt ttttttggat     9660
attcttgcag aataatctat ggatatacaa gcataagaca taaattctat atatgtgtgt     9720
gtgtacatat gtatgtgtat gtatagatat ttatatgtac ttctatcctc atttatttttt     9780
aaataattgc taccatacta tataaatagc tttataccttt gcatttttaa tttaatagtg     9840
cattttggaa atcctgtgct ttccatacat ctatctctga ataagattct ctctttttttt     9900
ttttaagatt atataagcat ttcagtatct atttaactcc ttacatgatt agtttggttc     9960
ttgccagtct tggattttag tttaggttag atcattctag gttttttgaaa agaccactaa     10020
atttgcaggt tctgtggtag ctggggtcac tatttagagt aggccactgc atagaagatt     10080
caaagattca tctatattcc caaaaagtct tagaataagg atgacacagc tagttagact     10140
tcctgggaat attttttgatc acaatagatt ggtctgaagt tcaggtgttc gttaagaacc     10200
atactagcct caagaatata gtgaataggg ccggacatgg tggttcgcac ctgtaatccc     10260
agcactttgg gaggccgagg cgggtggatc acctgaggtc aggagttcga gaccagcttg     10320
gccaacatag tgaaaccccg tctctattaa aaatacaaaa attagctggg tgtggtaatg     10380
ggtgtctata atcctagcta ctcaggaggc tgaggcagga gaatcgcttg aacccagcag     10440
gtggaggttg cagtgagccg agatcgcgcc actgcacttt gactgggtga cacagagaaa     10500
ctctgtctcg aaaaaaaaaa aaaaagaaa atgaaaaaaa tataaatact gcatattatc     10560
aggatgagat ttggtgttca gtcatcagtc cactattgtt ctaggtagag gcatcagaac     10620
tctagtaaag agttctgtag tcctcttcac cctttccatg tgtaggattt ttcatgtgtg     10680
ttgctatcag aaatagcatc tggaggattt tttccagtca gctactggtt taagtaacaa     10740
tggcatatga cagtcagacc ctggaaagct cagtaatttt gccagtttgg aagttttttg     10800
tcttgaaaat atagatttat atgccacagt atattacagg ggctgggttc acggcctata     10860
atctcatttg ttttttgtaat tccttcaaaa gaaagctata ttcatagtca ttatatttgt     10920
aaataatgta gatactctta aataacgtgg atgccttgta tgcctcagtg tagctgaatg     10980
actttatttt taggtaaata ccatgattta gaatgccagc tgattcagga gtttaccagt     11040
gctcaaagaa gaggtgaaat ctccagaatg agagaagtag cagcagtttt acttcatttt     11100
aaggtaaata gtaggaatta aaaatgaata gtgttcaagg ctatggaaat tacgtaagtt     11160
ctatatatta tagtctctga tttcccccat tcattatgta actatcacag tgataatttt     11220
cactgttttg agtaatttgt acatttgata ctctgtaaat ggtattgaat gttatatatt     11280
taatatttaa ggttttatat tcaataatat taatattgaa ttaaaattaa ttgatcaatt     11340
aaatattgat gaattttttat actttgataa agaaaatcat attgtctgcc ttttttgcttc     11400
cacatattat aatataggtg aaaagaaaga aaacgtgacc gtaaatatct gtaggatata     11460
ggaaccagag agtagatgga acatgactag taagagactt aaatccaggg gacctcagga     11520
ggtaatacaa aagaattttg tattacggaa ttgtttacct agaatttgaa ctcgggagag     11580
```

6668

```
aatccctgtg  taggagtata  tttctgcaaa  gaaagtgctt  aaagaaatgg  ttcttccttc  11640
aatctgtttc  tttgatttgt  atcagattag  ggaaggggaa  gctatttgtt  ggacttttca  11700
ttttggtaaa  atctgaatga  gtattgagaa  tggctcttga  gacagtagtg  cactttatat  11760
tgctttcctt  actggttttt  atgtatgatt  tattaatagg  caaaaatctc  attatggtga  11820
gcttaatgac  aaatcagttt  gttttaaaca  cattttatta  aaatacattt  agtttaaaaa  11880
gtaaatttcc  aaactaccag  ctgaatacaa  ctgtccagat  tcttgcaagg  aaaaccaaat  11940
gctagagaag  gccaggcgca  atggctcact  cctgtaatcc  tagtattttg  ggaggccgag  12000
gcgggtggat  cagtttagct  caggagttcg  agatcagctt  aggcaacatg  gtgagaccct  12060
gtctctacag  aaaatacaaa  aattagccgg  aggggaggca  tgtgcctgta  gtcccagcta  12120
ctcgggaggc  tacagcagga  ggatcgcatg  agcctgggag  gcagaggttg  tagttagcca  12180
agatgacacc  attgcattcc  agcctgggtg  acaggagtga  aatcctgtct  caaaaaaaaa  12240
aaaagaaata  tatatataca  catatatata  tatatacaca  cacacacaca  cacacacaca  12300
cacgtatata  tacacacttt  aatatatata  aatatattta  tatgtatata  aaacacatac  12360
atatatatat  gtaaaacctt  ttcccaagac  cttgactctc  tgtgtatgtg  tgtgtttgtg  12420
tgtatgtgtg  tgggtgggtg  tgagtgggtg  tgttttggag  ttgaaggaga  tggctagatg  12480
atcataggac  aaaaattact  ctaaagaact  cagttacata  cttcatcttt  cttgttttag  12540
tctaaagttc  aacaaggata  tgtaccaact  gataaatttt  atcatagaaa  gtgactaggg  12600
agacgatacc  tttatcaagt  tactggtttt  ctgcagttaa  ttttatttaa  gtccaacagg  12660
tgttgctatt  ggccatttac  tggtaaatag  tcatagcttt  atgacatata  acacttcttt  12720
ttttgaaata  ataattatta  taattgaatc  agaataataa  caatgtgttt  cttccttgta  12780
gggttattcc  cattgtgttg  atgtttatat  aaagcagtgc  caggaggtaa  cataacagta  12840
cactttgttg  gatattattt  tatgctaatt  gttgttttaa  aatcatgtag  aaattatatg  12900
ttcactgtat  aaaatgtctc  tgctgtttag  ggtgcttatt  tgagaaatga  tatatttgaa  12960
gacgctggaa  tactctgtca  aagagtgaac  aaacaagttg  gagatatctt  cagtaatcca  13020
gaaacagtcc  tggctaaact  tattcaaaat  gtatttgaaa  tcaaactaca  ggtaatttta  13080
aatagtaaca  aattaaatag  ttcttaaagc  aatatgtaat  ttttttccta  tattttaaaa  13140
gtatttttaa  aatttagttt  acttatgtaa  tgaccttaga  aatagtaatc  tagttaagga  13200
gaaaggaatc  ctcatgcttt  ttaaaaaatg  ttttgtattc  accaagaaga  aagtgctaat  13260
caataagtat  catcagagaa  catgcttgaa  atttgtgtag  tattcgtagt  agtagtataa  13320
tatattgtgg  taagatagcc  ttgaagattt  ttcttttttt  ttggtccctg  ccttcaccaa  13380
tagatgtcat  ttgtgaaact  gaacaagaat  tacaagagca  gtctgtagaa  tttttaataa  13440
tatggtacta  acctgaaaag  ggaaaacaca  gaaatttaat  ttaccccat  atcactgtac  13500
tttcagataa  catttcctaa  gctgtttaca  actggattaa  acaacattca  ataaatgttt  13560
gctttttttt  tttttaaca  caattcagga  attttgatag  tattgtcatt  ctctagaagt  13620
ggggatgtaa  tgtacagcat  ttcacacatt  tactgtctaa  gaaaccctgt  tttggagtaa  13680
tgcctataga  catctgaagg  aacactagtg  ttacctggaa  ctcagtttgg  gagatgctgc  13740
cttaaggaat  tgactctatt  gtttgtactc  tcagttttgt  tttttttgatg  cacctcacag  13800
agcagaatag  gccaatttaa  cagaaaaggt  attattccta  agactgataa  agatcctcta  13860
caggtaaata  tgagaagtgg  taaaatgtaa  aaacctgttt  taaaatattt  tatgattggt  13920
ttgtttnctg  taattgcctt  tttgattgga  ttgtaagtca  gaaaggttca  aaactgtgga  13980
gtgaattta  aaagaaaaat  atcttgagaa  gttgtagaat  ttaatattta  cctaattaac  14040
agaatgttaa  ccttttctt  ttagagtttt  gtgaaagagc  agttagaaga  atgtaggaag  14100
tccgatgcag  agcaatatct  caaaaatctc  tatgatctgt  atacaaggta  aatttttaat  14160
gattagaaaa  taatagataa  cagattttt  aaatttttt  gataaaaaca  aggaagtatt  14220
caggtatttt  tgaataagtt  tgtcaccagt  ttacctttta  gcattaaatg  cttagctgta  14280
tagactagtt  atattgtaca  agactgtatt  gtacaacatt  cttaatacat  taacgtcagg  14340
aattggatgt  tatgctttat  ttttctcta  agcattagtg  taattacatt  tatctgcagt  14400
caaaacttta  gaaactgcaa  aaggaagtga  tgtaatctta  acaaatgaca  atttcagctc  14460
taaatcttct  gtaggaattt  gtcttgtgct  tttgtaaatg  tcagtgttac  tcttagagat  14520
tgtctcagaa  gcttcatatg  gagtcttgtg  gggttttttt  ttttccttgac  ttttcccaac  14580
cctattactc  ttcttcagtg  tcttcatttt  gggagaaggt  ttttccaaag  ttaccgtaat  14640
gaggaagtcc  atctcaacaa  caacactgtt  atgaccctat  cttcagcaat  gggaaataga  14700
aaattagagg  gaaagtccac  aaggacaaaa  caaagaggg  tgaacagaca  gtagatcttt  14760
cagtactctg  ttttgggtcc  catgtgatga  atggcattag  acatacttga  ggccaatctg  14820
ccactgtcgc  catttctgga  ctagttaatt  gcctcacaag  ttcttttcct  aggaatttat  14880
aacagttctc  aaaaccgtaa  agttgttcgt  aatatttcac  tgtatttata  tgtaaccctg  14940
tagagttgat  ctctgcatca  taagtactct  cccagagttt  aagaaatggt  ggcttaacat  15000
aagtcatgaa  agtcacgttg  taaaaatttg  tattccttaa  tattgttact  atacctaaaa  15060
tgtatattaa  tcttttctc  ccccttttc  atgaaaagaa  ccaccaatct  ttccagcaag  15120
ctgatggagt  ttaatttagg  tactgataaa  cagactttct  tgtctaagct  tatcaaatcc  15180
attttcattt  cctatttgga  gaactatatt  gaggtggaga  ctggatattt  gaaaagcaga  15240
```

6669

```
agtgctatga tcctacagcg ctattatgat tcgaaaaacc atcaaaagag atccattggc  15300
acaggagggt gagtattttt gttaaatact tctgttaaaa ctgaagacat taataacttc  15360
attatatttg ggcaaattat caaatgttga ctatcattag aattttctgt gaagagttct  15420
tttaatccag attgttatat tattgatcaa atcttgttct taaaccacat gttgaaatga  15480
cctaacataa catgattgaa atgtaagccg ggcgtggtaa ctcactcctg taatcgcagc  15540
actttgggag gccgagatgg gctgatcacc tgaggtctgg agttcgagac cagcctggcc  15600
aacgtggtga aacccatct ctactaaaaa cacaaaaatt agctgggcgt ggtggcagac  15660
acctgtaatc ccagccatta aggaggctga agcaggagaa tcacttgaac ctgggagacg  15720
gaggttgcag tgagccaaga ttacgccact gcactccagc ctgggcgaca cagcaagact  15780
ccgtgtcaaa aaaaaaaaa aaagtaaagt agatatttgt caattaaaaa ataatgtttt  15840
aaaactatcg agcagaacac tagtaatata aaaagttcca tagtttcttt catttttttt  15900
tttctcgata gaataagttc caggttattg accaggaaac gcatctttt tttgttactg  15960
ttgcaggtgt gaaaaaata gaaaatagtt tgtagtttaa gtaccttgaa ttgatgagtt  16020
ttgttcagag actttagcat aaaaaactat taaattaata ccttaatgcc tacaattatt  16080
tacagactag aagaaaataa cttgctccaa gaatagttgg catcttagct accaggcttt  16140
aactgcctgg aacccagatt ctaaaaagag acagaatgac attggtggac tcaaagtcca  16200
gaatccccac atgtatatat cgaaaccagt tttcttattt cccattttgt tgtgtattaa  16260
ataatgatta gagagagtta aaattagtag taagaggtaa tacctgaaag gtagtagcaa  16320
ggaagggaag aggaaaacta atgaataata ggaatttgtg tgtgtgtttg tgtgtgtgtg  16380
tgtgtgtgtt tacggtagtc tcaagttaca tatcctaaga gcaaaaaag tttaaccttc  16440
caaagatacc ccatataagt gtttcaggtg accctcagta attaagaata gctaaattat  16500
gtttaatata tcttcttaa tatcatgaat aaatgtgcat aatcttaaaa tgactatatt  16560
ttaaaattgt taaactttta aaggtttctt tttaaacagg actatttcgt tatttagaat  16620
gccaacctat ttggaatagc tcactttcta aggaacccca gcaagtttta ctattgagtc  16680
agaattgtaa ggctgaattg taaagcaact tcagaaatta gaagtccaaa tctactcatt  16740
tatcagatga aaatcttccg tttagatatc agggctaact ttatttcaca aaactagtta  16800
ttggaattag aaattaggtc tcttggctat tggtccattt ttgttgttga tatatactaa  16860
gtttggaagt actcaaagtt gaaatctaag taaaatgttt tcttttttc atttgtcttt  16920
atgatgtact agtattcaag atttgaagga aagaattaga cagcgtacca acttaccact  16980
tgggccaagt atcgatactc                                             17000
```

<210> 9101
<211> 147
<212> DNA
<213> Homo sapiens

<400> 9101
```
atactttaag ttctgggata cgtgtgcaga gcatgcaggt ttgttacata ggtatacacg   60
tgccatggtg gtttgctgca cccatcaact cctcatctac attaggtatt tctcctaatg  120
ctattcctcc cttagtcccc caccccc                                      147
```

<210> 9102
<211> 5116
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (3802)
<223> n equals a,t,g, or c

<400> 9102
```
gctgaagaat ttagggagtt gattctgatg taagaagaca atggataaag tattttttcag   60
aagtcagtac aaattggcag caaatctacc aaaaacaaat aataagagaa aaactatcag  120
tgatggattt atcttcacat gtagcatgta ctggtttaaa tcagtgaata actacatagt  180
tattgaattc aaaaacttt atttagacct ggtcatctat tctcttaatt aaatgaaatg  240
aagtttatgg agattcactt ataagtcatg tgttgcttaa tgacagggaa acattctgag  300
aaatgcattg ttaggtgatt tcctcattgt gcaaacatca cagagtatac gtacacaaat  360
ctagatggta gcacctatta cacacctagg ctatatgcta tagcttattg ctcctaggct  420
```

```
ataaacctct acagcatgtt tctgtactga attctgtagg caactgtagc agaatggaaa   480
gtatttatgt atctaaacat agaaaaatat atagtaaaaa tacagcattg taatcatata   540
tgtgggccat taggtgatgc ataactgtaa tatctaatat ttaatttatt agatagttat   600
ctcaaacatt tagtatctag taaataaact tattttatat tactatctag gggacttatt   660
tgaaaattac tgcagaaatg atgacctggt aacatttgga agatttttgtt atggtgtcac   720
tgtcattttg acatacccta tggaatgctt tgtgacaaga gaggtaagcg cggttccttc   780
ccaacgcttt acccaggtga tctctctgcc acatttaatt taggaagatt tataaataat   840
acagtttggc aaattcccaa gggcatgaca aatggtataa tttgtaaaat tttcttttttt   900
gactctaaaa tgtcagagtt taaagatgaa tttatattca gatgtttaca agacaatttt   960
tcaaagttc ggtttgaaaa ttaggtttgg tagatttggc ttatatttct gtgagcacaa   1020
atatttatac aactgcattc caaagtgact gccagccttt tgcgacagcc aaactaaagt   1080
tgttgctttt aaggcattct tacaaagaaa ttaagtatca aggtttaaaa catgtttttac   1140
aaaactgtct ttttgcttag atgtttttatc agtcaacatg tattaaaggc actgtagaat   1200
ctacagattc taactggttt tgttatttttt taaaaactaa aatatcttat attccatgga   1260
gaaccaaaat tcaactgaaa ctttttagttt tacagataca ttttatttat gtatttatac   1320
atgtagacgt gtatatttac aactatacat aacataaact aataatataa ataataacaa   1380
atatataggga tattatttac atataaatat attgtattgt caaagtcagc tctaaattgg   1440
gttatatatt ccacttgtat ttgtagagaa atattatctg aaagagaatt cattctttttg   1500
gtgtaaaatt ggataacatg gcctgtcagg aatcccttat gctgtcagct aaaaatccac   1560
tgtaccagtc ggcagtaaaa catgatcttg cttcacagtg ggtctttcag ggaccacact   1620
gaaaagggct cagtcatagg atctgttcct agaggctgtt tatacagtgc accatgtgaa   1680
agggtctaat gagataagtg aaatatctac agagctttaa atacactaaa taatcagcag   1740
gcttcttgag gcaagccagg gcttacttta agtcagtccc agggataagg aactgactgc   1800
acggggaaac agaagaggga aatgtttagc actgtgtatg tcctttacaa ctagcacttc   1860
tctccctcac acatgtataa ctcacaggcc agttctctac cttgactata aaggagaaat   1920
agactgaact aattttttttt taaatttaag agcctttcga aactttacta gctattgtca   1980
gatgcaggac atggtattat tttagcttct gctcagtacg taggttcaaa tctaatctct   2040
agatcagcaa gtaagaacag atggtgcatt ctcacgtggt tgctagtaaa ctgcctgcct   2100
gcagacgatc tgagtcactt cacctgcaca acttctgtgt ttagtacttg aaacttgagt   2160
ttcctttcta gctgctgtgg caggaagata gaactgaatc aagatctctg ccacaatagc   2220
aaatactcag cagaagaatg gtgtctataa ctttcccttc tcttactctt cattctgcac   2280
acacacacag gtacacacac aaatgtatga ctgacaaaaa tataatcaaa ctgtttcaat   2340
tcataaaagc actaaaaagg ctgtctaccc ttaacaaata tctcttacta cctgcctcac   2400
taagtgattt ttcactctca caattatatc atagaggcat ctgtaagaat ggatcttaaa   2460
taagataata cttggagaga cattacaact tatgttatta atatcaccat taaattatta   2520
gcaaagtcat ggcagtatgt gacacatggg agatgttgca tatccaggca gcacagctta   2580
gagagatggc ttctttatga tacctcaata tctgaccttc tgttatttcc aactctttgt   2640
ctcactgttc ttttgcacag ggtcactact tattcagact atcttctctt tatcctccat   2700
aggaattgtt cctgttatta cctcttttgct ctttttcacg ctcttgtctc agcctataat   2760
tctctccaaa tcctgtgcat gtttcaagcc ctacctcaaa ccaaggtagg tcaagcatat   2820
ttcagggatg ctgtaaagga gattactgta aggagacggc tctagatacc taaagctcct   2880
tctagtccta aattctcctt gatctttttt gtcctgttat aaattgatct ctacttgctt   2940
ttttaagttt cgttgtatgc ctccaaaaat taattcctga gaataggaat catttccctg   3000
acattttatc tttgcaaacc atatcataat atgggacaca ttaagtcagt aatttttttat   3060
tgctttcctg atctgagtag tcatgaaaaa tggtgatgaa ctcttgccca tttttgttga   3120
ggaaaggcaa gataaaatag acttaaatta taacaaatag gaattagtta atgcagaatt   3180
aatttcctgt tagtaaagga tattacacat ccagtattaa taagggaaat gtgacagcta   3240
cttcttagag gccatgcaaa taatctaaat agcatgttta gtttgtttta gtagtaacct   3300
attggactca agaaagaagg ataagataac tttccaaagt ctctcctgta cttgaaagat   3360
acatgtattg aaacatcggt atgccacact ataggtctgt aatataatcc actgactaat   3420
agttcaacaa agaatacttg ttattgatat gtgtgtctgt atgtaagtaa tttggaaaat   3480
atagaacatt cctagtgact taagatttga ttaatagcct tgttggtagt attttatata   3540
ttcctaaata ctattgtaaa atactccctc aataaatcct gcatgccttt aaaagtccct   3600
ctcaaaataa tctgtttatt cggcaggtaa ttgccaatgt gttttttggt gggaatcttt   3660
catcggtttt ccacattgtt gtaacagtga tggtcatcac tgtagccacg cttgtgtcat   3720
tgctgattga ttgcctcggg atagttctag aactcaatgt gagtacgtgc aaagatttac   3780
cccttcactc taaaattctc tntaaaagat aatgattaca tttaacataa gatgtatttt   3840
ccttaacaaa agtgtcactt ttgaagtgga atcaaaatat gtttgtaata gtaaatattt   3900
tcaatgatga ttctgtgcac tttgtgggac tatatagttt taaagtagtg gttgtttaga   3960
gacatatggg gtcgtcacaa ctgggtaggc agtgctgttg gcctctagtg gatagaggcc   4020
agggatatac atcccacaat gtgcaggtct ctcacagcaa aaaattatct gatccaaaat   4080
```

6671

```
gtcaattgtg ctgaggttga gaaaccctgg tttagagtac ttttgcatat ctcatttact    4140
ataacacata aatgttacta aaaatagcta taaattaagt ggatttggac tttgctgaat    4200
aataatatat ctagtgaaat ttatgagaaa tatgaaagga ttcaagttat atccattcac    4260
ttgctatgac aaaatttctt tttcttttaaa tattttttctt tctccagatc tttctttttat    4320
agtctgcact gccatcaacc aaatagaagt cctcataata tcacagttga attaatccca    4380
gctctgtttc aactatcatg tatttaagtt ctgctttcag tttatcggca ttttcctacc    4440
agagcaagta taaattccgt tgcttctacc atcttgtctt ctgtgtaaaa ctatttccca    4500
tttacttccc aaaatttatg ttcagctcta gtcaatctaa ttttttggcc tgtgaataag    4560
ccatatcaat tctttccatt attctttgtc ctatctgctt tttatttccg ataatgatta    4620
ttttttcttttc atttctgtcc aaattttaca aaaactttaa gatccagtgc aacttctaat    4680
tcctttattc acattcactg atcatatatt tattgagtaa ttactatgtg ccacacaata    4740
gaatataagg atgaatgcaa taagaaagga cctgtgcatt ctcacaaata aacataaaag    4800
ttcaactgca atataggtga tgaagacaga ggaggccagg aacggtggct cacactgtaa    4860
tctcagcatt tttggaggcc aaagtggatg gattgcttga gcccaggagt tggagaccag    4920
cctgggcaac acagtgaaac cccgtctcta caaaaaatta gccgggtttg gtggcatgtg    4980
cctgtagtcc cagctacttg agaggctgag gtgagaggat tgcttgagcc caggaggtag    5040
aggtttcagt gagctgagat ggcaccactg cactccagcc tgggcaacag agtgagaccc    5100
ggtctcaaaa aaaaaa                                                    5116


<210> 9103
<211> 10115
<212> DNA
<213> Homo sapiens

<400> 9103
ctgaacctct tctttacaac gaaatgatgc tcaaggtatt gtagcatttt atgtgactta     60
cttaaattgc ttttctagca gacttcttcc ttcctcaatt tcttcagttg ccctctcctt    120
ttaagaacta cctgcttctg ctttaacttt tctttcaacc tgtgggctac ctaattaact    180
gcatggtggc tttcattact gttttacaaa tgagatacat gattctattg tacaaagtta    240
ggaagggaat gaattatgac aagttcattg aattttaacc ccctagtttt atgtgtccat    300
tatgacgctg ccagattgca tttctgttaa tctatttact gtcaccacct tctgtataag    360
ataagctttt tgaggcagga accatccagt attgacttgg cagtcttgag agcttagaac    420
agtgctggac tcatagtaag aacttgtggg ccgggcacag tggctcaggc ctgtaatccc    480
agcactttgg gaggccgagg cggatggatc acgagatcag gggagatcga caccatgctc    540
gctaactcgg taaaacccgg tctctactaa gaatacaaaa aattagctgg gcgtggtggc    600
aggcgcccgt agtcccagct actcgggagg ctgaggcagg agaatggcgt gaacccggga    660
ggtggagctt gcagtgagcc gagatcgtgt cactgtactc cagcctagcg acagagcgag    720
actccgtctt gaaaaaaaa aattgtgaaa ttgatttgtt cagtggcttt atgttattct    780
ttaacttaaa taatcactgt atttaactaa acagagatgc aaatgccatg agaaggtcaa    840
gcagatcaga agatattttg gaaatagatg aacgcaagga ccacagacag ctgagcagct    900
gtgtgtttat tcccctcacg tttcgttcct tcaggggcca gggacagcca tgtgttcttt    960
ggcacacagg gtgctgttca ggacttccag aggattccag ggctccacct tcctgtatca   1020
ccagcagcac ggtctcatat ggatggatgg tgcaagtacc tccagggctc catgtcacca   1080
ccccacctcc cccactgctc cccagtctca cattcctcca taagacaccc ctgggtcaga   1140
tctagccctg aagagatgaa tgatcaatca ctacatgccc ccagctgtgg ggtttgtggg   1200
ggtgagaaga gaggtttaaa agaggtagtt ttgcttagag tcagggatcc aatcaatatt   1260
tgaaactctt aagtttaaac cctttcttcc tctctctttc tgcccctaaa aatattttaa   1320
ctgcaatttc tagcagcgtg aaaatcaaca ttattgttat tcttccaccc taatctgaaa   1380
cctttgtgcc accatccttt ctctctccca gccatcttct ctcctgcttt cgcccacccc   1440
atacacccct ccacctttct atcaaagccc tcagagacat aaaaaatagc ccatcctttt   1500
gaaaatggca agtgttcctt gacttgataa acctgacatg aggctctgta aatgggacta   1560
gtcagtgtcc aggttgaagg acgttcagct aggcacgggt tccatctctg tagctctgtc   1620
ctggcactga gctcagtatc aaagaacccc agataccccа ggtcccctaa tccaatagcc   1680
cctcacccta cagctaagat ttaaaaatga agtatctgat gttgagagag acaaattaag   1740
ttgtgcaatg atgtagtaac cagaacaaga.aagggaagca atccaatatt cactaggtgg   1800
tgagcagata gtgaaacctg acttaagagt ggatgttttt aactctacat aatagatgct   1860
ctcttgtgaa aatgtgtaga aaacaaaata acagtctaca tattgaagaa tttgaatttt   1920
aaaagaattg cagagtactc cactgcttat gaaattcaag taatcttaca tgttttttctt   1980
atctagctta tgggtagaag cagaatgagc ttctccagtg ggatgaacac agacacttca   2040
tattcaacaa gttcacactg agcccatcat cattgcttgg aaggctgctc ctcttcctgt   2100
```

```
gttctctctc ttggccaatg gcactgccat ttccccatcc agaacctggg atactgcagc    2160
agtcttttca ctgcccctgt ctaccccctct ccaatccatt ctctacacaa ctgcctacag    2220
gaatctttcc aaaacattag ttctgaccat aactctactt ttcttaagac agcactttgg    2280
ctccccattg acatcacagt ctttagagtg atgtaatgtt catcattcgg tcataagctg    2340
caaatccatt ctccttctca cctctgtctc ctgcatgcaa ctccacagct gaaaggagcc    2400
aaactccctc cactctctca cacctcccag ccttggccct tgcttccact tctaccttta    2460
ccctccattc tcatcaccct acactattat ctgatgacta ctcttaagtt ttcataacca    2520
gatcaagtat cgatgtctcc accaacaggg aagagcaggc agtggttctc aagtcacata    2580
tgtaatttaa aattttctag tattttaaat tttagaaaat gtttagaaga aactgatcaa    2640
ttaataacat gttttattta caccatatcc catatattat tatgttgata tcaatatatt    2700
gaattttttt tattaagatg agaggagtct cactctgttg cccaggcggg agtgcggtgg    2760
catgatctca gctcactgca acctccgcct cccaggttca agcaattctc ccacctcagc    2820
ttcctgagta gctgggatta caggtaccca ccaccacacc cggctaattt ttgtattttt    2880
agtagagatg gggtttttgcc accttggcca ggctgttctt gaactgctga cctcaagtga    2940
tccatctgcc ttggtctccc aaagtgctgg gattacgggc atgagccacc acacctggtc    3000
aatgaataga acattgattc agcatgcaat caatattttt aaattattga gatgctttat    3060
atcctttttt tcctactaag ctttcaaaaa tcagtcttta tttactctt atgacacatc    3120
tcaatttgct gcatttcaag tgctcagtag ccacattagg gagtagctgc catattgtac    3180
gtaagagcac cagagcactt gagagcctcc tagagatcct aatgaaaaca gaatcctgtg    3240
ctatgcttcc agaggttcca tttctgggga gagtctaatt ttggtggtct ggagtgggga    3300
ccagaaatgt tccttttcag caagaacccc aggcagttct gaggtacatg ttcgtctgac    3360
catttgggac ttgatagcta gatgcactga ttgtcgagtt acacctatag gggtttatgt    3420
tcagattcca ccacctaaaa gctgtgaaaa ttagtaactt cagttctcta ggtctcagtc    3480
tcctcacctg caaaaataac tacctagaga cttgtgggta ttaaaagggt aatatatttg    3540
agacattcag cacagtgcct ggcaggtgtc tcataatagc agctgtgcac tgcacccgca    3600
gaaatctcta tcacacagac gaggtgtccc ttgcatcctc ctcccacaac tctctgtgct    3660
tccctccacc accacccatc acgcaatgct gtgtcctgtg cttgctatgc tgcccctcaa    3720
ctcaactgag aagataaact ggctgctgtg tgctcccaca ttactctgcc tcacacatag    3780
taggtgctta gtacacatct ttttttttt agaaattaaa ctaaatctga gcaactgggt    3840
ttcttgtagt ggagcaaaac tctttatgca aaagtgcctc aaggtgtctt atagaacaga    3900
agtgtgtaag taaagtgggg tgtatccctg tcctaacact cttccctta aagtctatca    3960
cagaaagctt tgccacagca atccatggct tgaaagtggg acacctgaca gatcgtgtta    4020
ttcagaggag caagaggatg attctagaca ctctgggtgc tgggttcctg ggaaccacta    4080
cggaagtgtt tcacatagcc agccaatata gcaaggtaag aagctcaagg tctacattag    4140
agataaaacc cagtgcatac atatgtgtta catttactct atacttcgtt ttatagacag    4200
cacttgatgt acatagcact gttctatatc attttataa tttcctatgt tccattatct    4260
gagtttttaat agtcatccat attctttact aagtcactgt cttaaaacca tacacagtga    4320
ggcacagtgg ctcatatctg taatcccagc actaccagag gccaaggtgg gcagacggtt    4380
tgagcctagg aatttgagac cagccttggc aacatggcaa agacccattt ctacaaaaac    4440
aaaaaacata aaaattagcc aggtgtgata gcacacgcct atagtcccag ctactcggga    4500
ggctgagagg tgggaggatc acttgagcct gagaggttgg ggttgtagta agtcaagatc    4560
atgccactgc actccagcca aggcaacaga gcatgacctt gtcttaaaaa caaacaaaca    4620
aataaacaga aaaaaaatat gctaataata tctcacagtt tattattatt attctctgga    4680
gaaaagcctg gtcaagtact ctgagcagag tggggatgta tgtgagagct cctgctctcc    4740
ctaggtgta ttagagataa acagttagtc catcttccct ggtatttacc ccaaggagta    4800
aataagagta acttcagatg tgcttccttg gagcacttcc ggatcatgat ctaggatcaa    4860
gcaacgacat ctcctccccc tttcacaggg gagagctgtg tattctacaa ggatgagagg    4920
tattcaatga ctagggcttc tatctgtggc aaaggttcaa gtaagaacta tgaataatgc    4980
ctccaaagat gaagaataac tcttgaaatg gtgacttggt atactgtatt cacactatca    5040
ctggttgatt tgcttttgtt ccagatctac agttccaaca tatccagcac tgtttggggt    5100
cagccagaca tcaggctccc gcccacatat gctgcttttg tgaacggtgt ggctgtaagg    5160
aggttttcac gtcttttcaa ctattagata atcataataa ttttagagtc aggaaatatc    5220
tcagaaattg cccaaattct atattttaca gatgaaagaa ctgaaagtca gacagataaa    5280
gtggcttacc ctctctccta tgtagtaatt cagttttcat gttttacag taaattgatg    5340
cttttcaaac agattgtgta gcagaggaaa gaagatggaa ggatttagat aaaaacaccc    5400
taaggtatcc caattcaaaa ccttgaatat aaatagcaaa aaaatataaa acccatatcc    5460
agacctaata tcttctgttt ttcctgttgt ggggccagtt tctctcaagt aatgtgttct    5520
ttattcattc actcattcat ccattcaaca gatagttatt gagaaaggaa caatggcctt    5580
atagtgtctg tattttctga accaaaaatc tgtacttctc atctgacaga tgattttat    5640
gcttttctg tgtgtcacgg gaaatattct acaagatgta acttggaaac agacatgttg    5700
ggatttccga gatatttta tgatttatgg gtacaatagc tcaggagatt gaaagttaaa    5760
```

6673

```
gccaacggtg cattccaaag caatgtcctg aaagcagtgg gaaatgcacc agtgacagca    5820
aatagatata aaaatctatt tttaaatgaa cttctggata ttactgtttt aatataaaga    5880
aaaagaaaat ggctaggaga aagaggaata agatcttaaa gcagaaaata atgattttta    5940
aaatatatag ctgaaaagtt aatctgagtt tgacagttat tgtgctattc ttacaacttc    6000
tctaaaagtt tgaaattatt tcataataaa aaggtacaaa aacgtatggc ctcatatgga    6060
ataaatgaca ttaaacttgc agtgcaactt atttaaaggg tggaggagga attgccagcc    6120
acctgattct gcagctttgt ttttaaaagg gaatatagat ctttccaggg gccacagcag    6180
agggagctca ggccaccagg gcaagaccca agctccttgg ggctcacaag ctgctctcca    6240
aggtactccc ttcctctggc agaggaacag catttcccag tgcccggcca tgtgattaat    6300
aatcacagcc aggccaggtg tggtggctca cgcctgtaat cctagcactt tgggaggctg    6360
aggcgggcgg ataacgaggt caggagtttg agaccaccct ggccaacata gtgaaactcc    6420
gtctctacta aaaatacaaa aattagccag gtgcggtggt gggcacctgt tatcccagct    6480
gctccagagg ctgaggcagg agaattgctt gaacccagga ggcagaggtt gcagtgagcc    6540
aggatcatgc cactgcactc cagcctaggt gacagagcaa gactctgtct caaaaaaaaa    6600
aaaaaaaaaa aaaaaaagaa aaaaaatcac agacatttct cagattttct tttctgagaa    6660
tcagatcaaa agaatctcac ataaaacaag gttattacta aactaagtcc ttagtggtcc    6720
aaaagccatt gcattaaggg aaaatttaag gcttttttgtt gctgtttgtg tctgtttata    6780
cagattcact ccatggattt tgatgacacg tggcaccctg ccacccaccc ttctggggct    6840
gtccttcctg tcctcacagc tttagcagaa gccctgccaa ggagtccaaa gttttctggc    6900
cttgacctgc tgctggcttt caatgttggt attgaagtgc aaggccgatt actgcatttc    6960
gccaaggagg ccaatgacat gccaaagagg tatggagaga atttgcccca tcaaaaggta    7020
gtcacatccc cttcatctat caatcattat ctccgtagag ctttctgact tagaggccgg    7080
ttcagaggaa gatgttaaca ttagcacagg tagataagtc aatacaccag tcacatacga    7140
aaccctctat ccacatttaa agaagtgact tcaagagtgc aacctggacc gtgagattaa    7200
ttgggcctct cgttgcaagg tgattcatgt cattctggca ttcatgggtg tactgagtat    7260
tccttatttc attctcaaag cagaatctat tctgagacta gctagcgtcc ctcagactaa    7320
tgaggacatt cagaatatcc ttactctgac tgttcatcct gcagataaaa aatggtcaaa    7380
tgtcggccac atcatatggc tcagtctcag atttatgttg ccacttgctc cagcctgcca    7440
ggagagaagt aaattgaaat actaggtagt gaagtttcag tttcttcaag gcccacaatt    7500
ctcacagtga cttagatgag atctcagcaa tcaatagctg ttgcctttct ggcaataatt    7560
gtaatggtac catttataaa gaactcacta tgtgctagca ctattgtaaa catgttaatt    7620
tattcaaagc tcctaaaact ctaagaggta gatgttatta ttatcaccat tttattttat    7680
ttttttgagat ggagtctcgc tctgttgcca ggctggagtg cagtggtgta atcttggctc    7740
attgcaacct ccgcctcctg ggttcaagtg attctcctgc ctcagcctcc caagtagctg    7800
ggactacagg catgcaccac catgcccagc taattttttgt attttttagta gagacggggt    7860
ttcgtcatgt tggccaggat ggtctcgagc tcttgacctt gtgatctgcc tgcctcagcc    7920
tcccaaagtg ctgggattac aggcgtgagc catcgtgccc ggccttatta ttattatttt    7980
tattattata tttttttgag acagtctcac tctgtcacct aggctggagt gcagcagcat    8040
gatctcagct cactgcagcg tctgcctccc aggttcaagg gattctcctg cctcagtctc    8100
ccaagtagct gggactgcag gcacccacca ccacatccgg caaatttttg tattttttagt    8160
agagtcagtg tttttgccatg ttggccaacc tagtctcaaa ctcctgacct cagatgaccc    8220
tcccaccttg gcctcccaaa gtcctgggat tacaggcatg aaccaccaca cctcgcctat    8280
caccattttg tgtaagaaaa actctacaga gaagttgaat aatttttcccc agatcatata    8340
gctaataaag taatggagct gagatctgaa cccagacagt gtgactccat tatcaatgtt    8400
cttgatgact acgctatcct gcctcctggt ggttacggtt tgtacatctc caactctgct    8460
tctttgctttt tcagattcca tcccccttcc gtggtaggaa cgttgggtag tgctgctgct    8520
gcatccaagt ttttaggact tagctcgaca aagtgccgag aagctctggc cattgctgtt    8580
tcccatgctg gggcacccat ggccaatgct gccacccaga ccaagcccct ccacattggc    8640
aatgctgcca agcatgggat agaagctgca tttttggcaa tgttgggtct ccaaggaaac    8700
aagcaggtct tggacttgga ggcaggattt ggggcctttt atgccaacta ttccccaaaa    8760
gtccttccaa gcatagcttc ctacagttgg ctgctggacc agcaggacgt ggcctttaag    8820
cgtttttcctg cacatttatc tacccactgg gtggcagacg cagctgcatc tgtgagaaag    8880
caccttgtag cagagagagc cctgcttcca actgactaca ttaagagaat tgtgctcagg    8940
ataccaaatg tccagtatgt aaacaggccc tttccagttt cggagcatga agcccgtcat    9000
tcattccagt atgtggcctg tgccatgctg cttgatggtg gcatcactgt cccctcattc    9060
catgaatgcc agatcaacag gccacaggtg agagagctgc tcagtaaggt ggagctggag    9120
taccctccgg acaacttgcc aagcttcaac atactgtact gtgaaataag tgtcaccctc    9180
aaggatggag ccaccttcac agatcgctct gataccttct atgggcactg gagaaaacca    9240
ctgagccagg aggacctaga ggaaaagttc agagccaatg cctccaagat gctgtcctgg    9300
gacacagtgg aaagccttat aaagatagtc aaaaatctag aagacctaga agactgttct    9360
gtgttaacta cacttctcaa aggaccctct ccaccagagg tagcttcaaa ctctccagca    9420
```
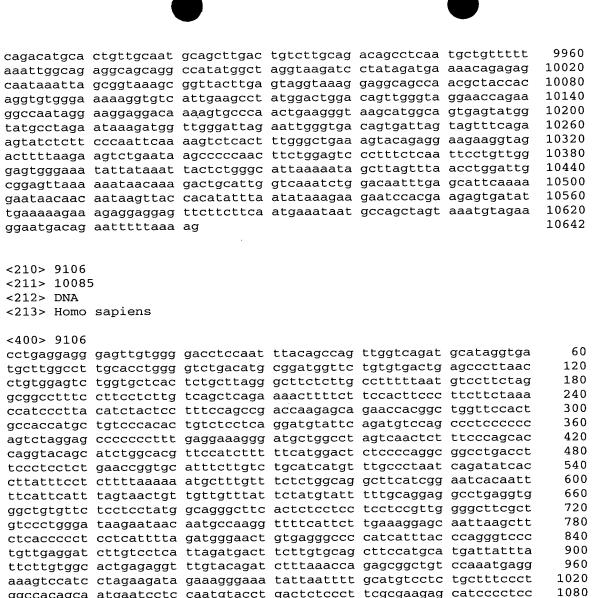
6674

```
tgtaataatt ctatcacaaa tctctcctga ggcttaccaa catctaaatg actttgcatt   9480
tggggagatt caatgatttg gtttgtaaag caagggtctg ctgcttggtt ttcccaggaa   9540
aaatgaacaa agatggagag agtccagaaa cagaactaca tatatctgga aggagccttc   9600
tcctgaaaat tttgcaggac agttccactt acctaaatca agatgaaaca cacacacaaa   9660
aatgagtttg taagcattca caagggtgaa attcaactca cctgtgatttt acttataaaa   9720
ttaatctctt cataggaatt atgtgtggac ttcatgagcc tcaaggtttt agagggatgt   9780
gaacctgcat gtatattttc tgacagtgga gagggctctg gtgcattgtg tcaccaacag   9840
atctcctaga ccatggctta ttaccaagcc ctccacagtg caaggggtgc tactggggaa   9900
tgggtggggtt taaatcctgc ctctgccatt cactagatgt agccttgagc atgttaccat   9960
tagccctctg cctcagtttc cctatttgtc aagccgaagt aaaaagcagt ctggaaaaat  10020
cgcattttgg ctctagaacc catggtctta agcactgcaa tatatcacct ttcagtataa  10080
aaatatttga atcagagttg caataaagaa tgaaa                             10115


<210> 9104
<211> 6404
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1484)
<223> n equals a,t,g, or c

<400> 9104
ctcaactcaa ctgagaagat aaactggctg ctgtgtgctc ccacattact ctgcctcaca     60
catagtaggt gcttagtaca catctttttt tttttagaaa ttaaactaaa tctgagcaac    120
tgggtttctt gtagtggagc aaaactcttt atgcaaaagt gcctcaaggt gtcttataga    180
acagaagtgt gtaagtaaag tggggtgtat ccctgtccta acactcttcc ctttaaagtc    240
tatcacagaa agctttgcca cagcaatcca tggcttgaaa gtgggacacc tgacagatcg    300
tgttattcag aggagcaaga ggatgattct agacactctg ggtgctgggt tcctgggaac    360
cactacggaa gtgtttcaca tagccagcca atatagcaag gtaagaagct caaggtctac    420
attagagata aaacccagtg catacatatg tgttacattt actctatact tcgttttata    480
gacagcactt gatgtacata gcactgttct atatcatttt tataatttcc catgttccat    540
tatctgagtt ttaatagtca tccatattct ttactaagtc actgtcttaa aaccatacac    600
agtgaggcac agtggctcat atctgtaatc ccagcactac cagaggccaa ggtgggcaga    660
cggtttgagc ctaggaattt gagaccagcc ttggcaacat ggcaaagacc catttctaca    720
aaaacaaaaa acataaaaat tagccaggtg tgatagcaca cgcctatagt cccagctact    780
cgggaggctg agaggtggga ggatcacttg agcctgagag gttggggttg tagtaagtca    840
agatcatgcc actgcactcc agccaaggca acagagcatg accttgtctt aaaaacaaac    900
aaacaaataa acagaaaaaa aatatgctaa taatatctca cagtttatta ttattattct    960
ctggagaaaa gcctggtcaa gtactctgag cagagtgggg atgtatgtga gagctcctgc   1020
tctccctagg gtgtattaga gataaacagt tagtccatct tccctggtat ttaccccaag   1080
gagtaaataa gagtaacttc agatgtgctt ccttggagca cttccggatc atgatctagg   1140
atcaagcaac gacatctcct ccccctttca caggggagag ctgtgtattc tacaaggatg   1200
agaggtattc aatgactagg gcttctatct gtggcaaagg ttcaagtaag aactatgaat   1260
aatgcctcca aagatgaaga ataactcttg aaatggtgac ttggtatact gtactcacac   1320
tatcactggt tgatttgctt ttgttccaga tctacagttc caacatatcc agcactgttt   1380
ggggtcagcc agacatcagg ctccctccca catatgctgc ttttgtgaac ggtgtggctg   1440
taaggaggtt ttcacgtctt ttcaactatt acataatcat aatnatttta gagtcacgaa   1500
atatctcaga aattgcccaa attctatatt tcacagatga aagaactgca agtcacacag   1560
ataacgtcgc tcggcttacc ctctctccta tgtagtaatt cagtttttcat gttttttacag   1620
taaattgatg cttttcaaac agattgtgta gcagaggaaa gaagatggaa ggatttagat   1680
aaaaacaccc taaggtatcc caattcaaaa ccttgaatat aaatagcaaa aaaatataaa   1740
acccatatcc agacctaata tcttctgttt ttcctgttgt ggggccagtt tctctcaagt   1800
aatgtgttct ttattcattc actcattcat ccattcaaca gatagttatt gagaaaggaa   1860
caatggcctt atagtgtctg tattttctga accaaaaatc tgtacttctc atctgacaga   1920
tgattttttat gcttttttctg tgtgtcacgg gaaatattct acaagatgta acttggaaac   1980
agacatgttg ggatttccga gatattttta tgatttatgg gtacaatagc tcaggagatt   2040
gaaagttaaa gccaacggtg cattccaaag caatgtcctg aaagcagtgg gaaatgcacc   2100
agtgacagca aatagatata aaaatctatt tttaaatgaa cttctggata ttactgtttt   2160
```

6675

```
aatataaaga aaaagaaaat ggctaggaga aagaggaata agatcttaaa gcagaaaata    2220
atgatttta aaatatatag ctgaaaagtt aatctgagtt tgacagttat tgtgctattc    2280
ttacaacttc tctaaaagtt tgaaattatt tcataataaa aaggtacaaa aacgtatggc    2340
ctcatatgga ataaatgaca ttaaacttgc agtgcaactt atttaaaggg tggaggagga    2400
attgccagcc acctgattct gcagctttgt ttttaaaagg gaatatagat ctttccaggg    2460
gccacagcag agggagctca ggccaccagg gcaagaccca agctccttgg ggctcacaag    2520
ctgctctcca aggtactccc ttcctctggc agaggaacag catttcccag tgcccggcca    2580
tgtgattaat aatcacagcc aggccaggtg tggtggctca cgcctgtaat cctagcactt    2640
tgggaggctg aggcgggcgg ataacgaggt caggagtttg agaccaccct ggccaacata    2700
gtgaaactcc gtctctacta aaaatacaaa aattagccag gtgcggtggt gggcacctgt    2760
tatcccagct gctccagagg ctgaggcagg agaattgctt gaacccagga ggcagaggtt    2820
gcagtgagcc aggatcatgc cactgcactc cagcctaggt gacagagcaa gactctgtct    2880
caaaaaaaaa aaaaaaaaaa aaaaagaaa aaaaatcaca gacatttctc agattttctt    2940
ttctgagaat cagatcaaaa gaatctcaca taaaacaagg ttattactaa actaagtcct    3000
tagtggtcca aaagccattg cattaaggga aaatttaagg ctttttgttg ctgtttgtgt    3060
ctgtttatac agattcactc catggatttt gatgacacgt ggcaccctgc cacccaccct    3120
tctggggctg tccttcctgt cctcacagct ttagcagaag ccctgccaag gagtccaaag    3180
ttttctggcc ttgacctgct gctggctttc aatgttggta ttgaagtgca aggccgatta    3240
ctgcatttcg ccaaggaggc cagtgacatg ccaaagaggt atggagagaa tttgccccat    3300
caaaaggtag tcacatcccc ttcatctatc aatcattatc tccgtagagc tttctgactt    3360
agaggccggt tcagaggaag atgttaacat tagcacaggt agataagtca atacaccagt    3420
cacatacgaa accctctatc cacatttaaa gaagtgactt caagagtgca acctggaccg    3480
tgagattaat tgggcctctc gttgcaaggt gattcatgtc attctggcat tcatgggtgt    3540
actgagtatt ccttatttca ttctcaaagc agaatctatt ctgagactag ctagcgtccc    3600
tcagactaat gaggacattc agaatatcct tactctgact gttcatcctg cagataaaaa    3660
atggtcaaat gtcggccaca tcatatggct cagtctcaga tttatgttgc cacttgctcc    3720
agcctgccag gagagaagta aattgaaata ctaggtagtg aagtttcagt ttcttcaagg    3780
cccacaattc tcacagtgac ttagatgaga tctcagcaat caatagctgt tgcctttctg    3840
gcaataattg taatggtacc atttataaag aactcactat gtgctagcac tattgtaaac    3900
atgttaattt attcaaagct cctaaaactc taagaggtag atgttattat tatcaccatt    3960
ttattttatt ttttgagatg gagtctcgct ctgttgccag gctggagtgc agtggtgtaa    4020
tcttggctca ttgcaacctc cgcctcctgg gttcaagtga ttctcctgcc tcagcctccc    4080
aagtagctgg gactacaggc atgcaccacc atgcccagct aattttgta tttttagtag    4140
agacggggtt tcgtcatgtt ggccaggatg gtctcgagct cttgaccttg tgatctgcct    4200
gcctcagcct cccaaagtgc tgggattaca ggcgtgagcc atcgtgcccg gccttattat    4260
tattattttt attattatat tttttgaga cagtctcact ctgtcaccta ggctggagtg    4320
cagcagcatg atctcagctc actgcagcgt ctgcctccca ggttcaaggg attctcctgc    4380
ctcagtctcc caagtagctg ggactgcagg cacccaccac cacatccggc aaattttttgt    4440
atttttagta gagtcagtgt tttgccatgt tggccaacct agtctcaaac tcctgacctc    4500
agatgaccct cccaccttgg cctcccaaag tcctgggatt acaggcatga accaccacac    4560
ctcgcctatc accattttgt gtaagaaaaa ctctacagag aagttgaata attttcccca    4620
gatcatatag ctaataaagt aatggagctg agatctgaac ccagacagtg tgactccatt    4680
atcaatgttc ttgatgacta cgctatcctg cctcctggtg gttacggttt gtacatctcc    4740
aactctgctt ctttgctttt cagattccat cccccttccg tggtaggaac gttgggtagt    4800
gctgctgctg catccaagtt tttaggactt agctcgacaa agtgccgaga agctctggcc    4860
attgctgttt cccatgctgg ggcacccatg gccaatgctg ccacccagac caagcccctc    4920
cacattggca atgctgccaa gcatgggata gaagctgcat ttttggcaat gttgggtctc    4980
caaggaaaca agcaggtctt ggacttggag gcaggatttg gggccttttta tgccaactat    5040
tccccaaaag tccttccaag catagcttcc tacagttggc tgctggacca gcaggacgtg    5100
gcctttaagc gttttcctgc acatttatct acccactggg tggcagacgc agctgcatct    5160
gtgagaaagc accttgtagc agagagagcc ctgcttccaa ctgactacat taagagaatt    5220
gtgctcagga taccaaatgt ccagtatgta aacaggccct ttccagtttc ggagcatgaa    5280
gcccgtcatt cattccagta tgtggcctgt gccatgctgc ttgatggtgg catcactgtc    5340
ccctcattcc atgaatgcca gatcaacagg ccacaggtga gagagctgct cagtaaggtg    5400
gagctggagt accctccgga caacttgcca agcttcaaca tactgtactg tgaaataagt    5460
gtcaccctca aggatggagc caccttcaca gatcgctctg ataccttcta tgggcactgg    5520
agaaaccac tgagccagga ggacctagag gaaaagttca gagccaatgc ctccaagatg    5580
ctgtcctggg acacagtgga aagccttata aagatagtca aaaatctaga agacctagaa    5640
gactgttctg tgttaactac acttctcaaa ggaccctctc caccagaggt agcttcaaac    5700
tctccagcat gtaataattc tatcacaaat ctctcctgag gcttaccaac atctaaatga    5760
ctttgcattt ggggagattc aatgatttgg tttgtaaagc aagggtctgc tgcttggttt    5820
```

6676

```
tcccaggaaa aatgaacaaa gatggagaga gtccagaaac agaactacat atatctggaa    5880
ggagccttct cctgaaaatt ttgcaggaca gttccactta cctaaatcaa gatgaaacac    5940
acacacaaaa atgagtttgt aagcattcac aagggtgaaa ttcaactcac ctgtgattta    6000
cttataaaat taatctcttc ataggaatta tgtgtggact tcatgagcct caaggtttta    6060
gagggatgtg aacctgcatg tatattttct gacagtggag agggctctgg tgcattgtgt    6120
caccaacaga tctcctagac catggcttat taccaagccc tccacagtgc aagggGtgct    6180
actggggaat gggtgggttt aaatcctgcc tctgccattc actagatgta gccttgagca    6240
tgttaccatt agccctctgc ctcagtttcc ctatttgtca agccgaagta aaaagcagtc    6300
tggaaaaatc gcattttggc tctagaaccc atggtcttaa gcactgcaat atatcacctt    6360
tcagtataaa aatatttgaa tcagagttgc aataaagaat gaaa                      6404


<210> 9105
<211> 10642
<212> DNA
<213> Homo sapiens

<400> 9105
cctgaggagg gagttgtggg gacctccaat ttacagccag ttggtcagat gcataggtga      60
tgcttggcct tgcacctggg gtctgacatg cggatggtcc tgtgtgactg agcccttaac     120
ctgtggagtc tggtgctcac tctgcttagg gcttctcttg cctttttagt gtccttctag     180
gcggcctttc cttcctcttg tcagctcaga aaacttttct tccacttccc ttcttctaaa     240
ccatcccttа catctactcc tttccagccg accaagagca gaaccacggc tggttccact     300
gccaccatgc tgtcccacac tgtctcctca ggatgtattc agatgtccag ccctcccccc     360
agtctaggag cccccccttt gaggaaaggg atgctggcct agtcaactct ttcccagcac     420
caggtacagc atctggcacg ttccatcttt ttcatggact ctccccaggc ggcctgacct     480
tccctcctct gaaccggtgc atttcttgtc tgcatcatgt ttgccctaat cagatatcac     540
cttatttcct ctttaaaaa atgctttgtt tctctggcag gcttcatcgg aatcacaatt     600
ttcattcatt tagtaactgt tgttgtttat tctatgtatt tttgcaggag gcctgaggtg     660
ggctgtgttc tcctcctatg gcagggcttc actctcctcc tcctccgttg gggcttcgct     720
gtccctggga taagaataac aatgccaagg ttttcattct tgaaaggagc aattaagctt     780
ctcaccccct cctcatttta gatgggaact gtgagggccc catcatttac ccagggtccc     840
tgttgaggat cttgtcctca ttagatgact tcttgtgcag cttccatgca tgattattta     900
ttcttgtggc actgagaggt ttgtacatat ctttaaacca gagcggctgt ccaaatgagg     960
aaagtccatc ctagaagata gaaagggaaa tattaatttt gcatgtcctc tgctttccct    1020
ggccacagca atgaatcctc caatgtacct gactctccct tcgcgaagag catccctcc     1080
atggcagaaa tctgaaaatg cccctgggga gacacatgca caagacagtg agtgatgcag    1140
ccgtttccca cgtatctcac aatgtacttc tctggtctta ttaggactaa atgagtatct    1200
cagtccataa tcacagggag aaccaccacc acagaccaca tacccggggt cttgaaaata    1260
attccatgca tgtgggactt tcagaagctc tccatgtctg cccagaaggg ccccacaata    1320
tactggggggg actttgtatg tggctcagca tggagcaggg gcaggatttt cagtcccact    1380
cactcccttg gccaagtgcc cttgtgcagt gaacaaactg cacaaccatg ctgggcagaa    1440
gcattttata tcagtcccct tcggacttag tctcacaggc atcatttgat gggggatggg    1500
agatgaagtg gttcttcgtt ttctagatac tttattctat aagttggatc acctcaagca    1560
aatgcgtgag tgcagctagc caagttctct atctcacagt cttcatatgg ctggctgtcg    1620
ctgatgagtg agtgagctac gaaatcagct taaagcacaa catgttattt ttgaatttga    1680
ataaaatagg aaaaggcaga gtgcattgtg tgaccatggg gtaagtaaga cactctccct    1740
ttctccttct cagtttttcct gtcataaaag acaaactac tatctaaggt ctccgtagtt    1800
aaaattcttt tttgttgttt ttttttatt tgagacagtt tggctcattc cccaggctgg    1860
agtgcaatgg tgctatcttg gctccctgca acctgcgcct cctgggctca agcagttctc    1920
ctgcctcagc ctcccaagta gctgggatta cacgcctgcg ccaccacacc cagctaattt    1980
agtatttta gtagagatgg ggtttcacca tgttggtcag gctggtcacg agctcctaac    2040
ctcaagtgat cccaaagtgc tgtgattaca ggcgtgagcc atcctgcctg gcctttctgg    2100
ttaaaattct gtgaggtttg cataaaagga atagagtagg ggcccaaaaa ccagtaagat    2160
gagaaatag tgtttcctca gttctaggat ccaggggaaa aaaaaagaa ataaaagaga    2220
aaatactgtt tcctgccact taagaggaag gactcacata tcctaccttc catcagcctt    2280
gaaggagaca agtgccctct ctctcacacc cggtggcctt cccttcccct ttcccagagc    2340
ctccaagaag gccctggcc tggcctgatg cccaccatca gcagcaatag gcaccaaaac    2400
ctttctcctt cctatccctc cccacctccc gaaagggctg gggacagcag gtgtgtcctt    2460
gttagttcca tccagctcag cttttggctgg ggagctaatt tcactggagc caggctaagc    2520
attagggtaa gtatttgtcc tgtcttgggc agtttcctca ctgaaaaatg agggcagagt    2580
```

6677

```
tctaagccct cctctaattc taaaattcta attaaaacgt cgcgagacta gtggtgcatg   2640
cctgtaatcc cagctactcg ggaggctgag gcaggagaat cgcttgaacc tgggaagtgg   2700
aggttgccgt gagccgagat cgtgtcattg cactccagcc tggcaacaag agggaaactc   2760
cgtctcaaaa gagaagaaaa aaaaatcac cagactaata tttaccttga gaatccttct    2820
tcatcttctt gtaatgacct tcggtgacaa catatctgtt ttagaagaaa acgcaattaa   2880
gattatctat gacaacaacc accgtctcca aatctgtatt gattcctttt attcattata   2940
agtctcatct acctgatgag gtaacttttt tgaagacagg aattgtatgc tgtgtaacac   3000
tgctttgatt cttccatagt tcagtcatcc ttgctatctt gcggggatt ggttctagga    3060
taccgccccc acaccatacc agaatctgtg gatgctcaat cccttacata taatggtgta   3120
atatttgctt ataaccaaca cgcatccccc ctatacttta tttacttagc gacaggattg   3180
ccctctgttg cttacgctgg agtgcagtgt catcctctgt tactcaggat ggagtgcggt   3240
gtcacgatca cagctcactg tagcctcaac ctcctgggct ccagtgatcc gcccacctca   3300
gcctcttgag tagctgagac tacaggtgca tactaccaca cctggctatt ttttttttta   3360
atttttaata aagacaaggt ctcactatgc tgcccaggtt ggcctcccaa tgtgttggga   3420
ttacaagtgt gagccaccat gcctggcccc atgtaattta agtcatcact aataaaatgt   3480
atacatattg tacattgttg acagttgtta tattgtactt tctgtttgta tttttattgg   3540
tttttttttt cttcaaatat tcagcctgat ctagttgaat ctgaagatgt ggacctgctg   3600
atgaagaggg ctgactgtat ctaacttagg gtcttgcatg cagctggcac ttaatacatt   3660
ttattgactg ttttagataa cattcaacag ataattccta ataaaaactc ttaaaagtag   3720
gagaaaaagg aaacctgagt ccttcctctg aagtggcagg aaaaccagcc tgggcaacat   3780
agcaagacct tgtctctacg aacacatttt ttaaattagc tgcctgcctg tagtcccagc   3840
cactcaggaa gctgaggcag gaggatccct taagcccagg agtttgatgt tacagtgagc   3900
taggtcacac cattgctctc cagcctgggt gacaacaagg ccctgagaag ggaaaaaaaa   3960
ggaaaggaaa ggaaaggaaa aaggaaaagg gaaaggaagg aaagagtaga agtattggaa   4020
aggaagagac aaaactatca ttatttgcat attaaatgat aaatgttagc caaagaagcc   4080
taagagaatc aactaagatt ttactggaag taatgagaat tcaatacagt ggctatctac   4140
aaaatcaaga aatcagcaca caaacctcaa atacttttcc catgtaccac caataactaa   4200
ttagaaaatg gaagaaagat cccatttaca atggcaatac aaatgtatga agaatttagg   4260
aacaaaaata caaagatctt ttatctaaca aaagatgtat aagatctata tatggaaaca   4320
ctaaagctct tctgaaagac attaacaaga aatgaataca tgacatgaga tagcacgttc   4380
ctagaatgtc gtacagatgt aaattctcaa attaatctac aaatttaacg taatcctatt   4440
caaatcccaa gatagttttt ggtggtggct gtttttaaga cagggcctag ctgtgttgcc   4500
caggctagag tgcagtggta cgaccacagc tcactgcatc ctcgacctcc caggctcaag   4560
cgatcctccc acttcagcct ctgaagtctc tcatatggtg tccaagaaat ggtgacaaat   4620
ctcacaaagg gactaggctc agcagggctg gaatattcag ggaaggtgtc aagaagaaag   4680
atgaacttga gttggctttt gagagatgca taggactccc acaggcagag tgaaataagg   4740
gcattttaga tggacaaaca cacagacaaa agcagaaatg tgggtggtgt gactgggggtt  4800
tggtgagggg ctgctgtggc tggaatggag ggctgccaca ataatggaaa tggtaaatga   4860
ggcaagtaag gttggactgg tggcatagcg tcaaggttgc cagctttatt aaatcactct   4920
tccaatatgc tagcactggc ctgttgggaa aagtaataca tcatgtaatc gaacaaaaga   4980
cagaggcaag ctccaggaat gggcactgta aacaggactt gtcccagagt agccagatgt   5040
aggctttagg taagttgatg caagctgagc atctctaatc tgaggggaa tgtctcacat    5100
ggtgtccaag aaatggtgac acatctcaca gagggtctag gctcaggagg gctagagtat   5160
gagacgttcc ccctcaccag tgaacttaaa aatgtggcca aaaatttttg taaaagatgg   5220
ctactctgta gtgctttaac tggacctatt tagacaatgc cttacacact ggaggacgat   5280
actgtgtaaa tctaataagt ctacaagaca atacgtatgt cttttggctc tctccttcct   5340
ctccagggtg atgacaactc cgtgagggtg gagattatac ctctctcatc atttcagcaa   5400
caaggaaata aattagtggc agagtaaggg tgacttgatg agtacatcca attgttgaca   5460
tagttttggg tgggagaaat tttcgacttc ttaaaatagt ctagtgggat tcacatggtt   5520
tcaattcaca gagatctgaa agcgaggatc ctttaaaaat cctgaaatat acactgcagt   5580
aaaagaacaa agcatacacc tcagccttaa atgactgaag aagtatgtca agtagcagca   5640
ggtgggaaag tggctttggt tttcagtttg tgagctctga atccacacaa agacaggact   5700
gcattctgaa aacctgaatt aattattgtc cttaccacaa tgaggcagaa aagtataatc   5760
aaaatcgtta gtattccagt aacaattaat gccaagatga gtttgtcagt atagccatat   5820
cctggaactt ctttttttgag ctaaaaaaaa aaacacacaa aaaaaaaacc agaatgagag   5880
ctaactattc aaaaccccag tattccaggt gagtagctga caggttcttt tttattttttt  5940
tgaaagaggg tctcactctg tcacccaggc ttgggtaccg tggtgcaatc accgttcact   6000
agactcgacc tccctgggct caggtgatcc tcccacctca gccttccaag tagctgggac   6060
tacaggcacg tgtcatcaac ccagctaatt ttcttatttt ttgtggagac aggctttcac   6120
tatgttggcc aagctggtct caaactcctg acttcaagta atccacccac cttcgcctcc   6180
caaagtgctg agattacagg cgtgagctac cacccccggc ctacagttca tcttgtgccc   6240
```

6678

```
taatctattt ctctctctac atgagcaaag tgggagatca ctgtcatgac caaagttaca    6300
tggccaagat aagctatggc ctgggagtcc cagactcttc tgtgtgggca cttttcctggg   6360
atatgctaaa tgatgggaaa tctgggtctc atgtttctgt gtggtcctca cctcaagcga    6420
cttctctttc tgttcactct gggcttctgt gctctcatta atgtagttct caatcttcca    6480
ttggtccgta tcccattcta tcttggatgc ctttacttcc tgctgcccac tgagaagctt    6540
catcaggtgg cctgtcctgg agatgagctt ggcacaggtc acttgcacat gggccccaga    6600
gcagtccatc ttcaaggtcc ggataacatg agcaatgagc cttctcacat tgttgttggg    6660
gataagggac tgtagctgct gggttagctg aatttcaaac tgatcacctg gggacgagag    6720
caatgggtaa ttgaagcttt tgggctcggg ggacaggtca gtgcccacgt tgttgtattc    6780
ccattttgtc tcagtttgtt taacagttgg ccctaagttg aatgcagtcc cagcggaatc    6840
tgcctcatga ggatgattgt agtttgtgtt ttcagagatg gttccttctg gcatgttagt    6900
gttttccata aaatcatttt cttcaaaggc atttcttgca gttgtgtgtt ttgtattatt    6960
gttttctata aaatgttctg aaggagcaga tacttccaga aaagggtttt cttgaggact    7020
caggtctcct aaggatgaaa aagcccttg tgaaggggaa tttatgaggc tcttcgctgc     7080
agagaatgga agcctgtttg cgagcatcag tctactcaga taactttct ttctgacctt     7140
tggactcttt ttgactttgg gtgttctgtg ggtcacgtgg gagcgagttt tgtgaaagcg    7200
gtatttttt ctggcatgta cgattggttt agacgtcttc gtatttgtaa ctctagcctt     7260
tgcactttct aaaatggaaa tagcgtgggt taagtctttc catctgtctc tcacctgtgg    7320
tagggctttt gcagggctgg aggtagaagg cgcgcccttg gagaagggtt tcagcacaga    7380
gactgctgcc ttatgctctt gggtgaagga aggcttggtg tagacggcgt ttcccgctaa    7440
cttctcaggc ccctgctgtg tgtggggctg ttccacctcc cttggggctg gactcccgag    7500
cctttttttct tcggcagcgt tctccacaga tgcctgggca ccctgttccc tcctgatgct    7560
ctgccttcct acctctttga agtgccttt ctggatgctc cttgggccca tgaggactct     7620
cttcactctc tgccggtttt ggcctacagt ttgaatcttt gccaggctgt ttcctgtggt    7680
tggcagttta atgaacggta gtaacagtga tttcacatct aggtttaccg ctgagaaata    7740
aggcaagatg taacttagtg tactgataaa atcactctcg tcattggtgt ctagctgctc     7800
actcccaaag cctgacaagt tgatgccact gctgtctgag ggctcctctg gctcaacaat    7860
cagctcagtg cttgtgtagt tcttccgggc ttgtaacacc ttcatgaacg ctccttctgg    7920
attccctacc gatgcttctt cagctgtcaa aaaagaagag actgctttga tcatgaaaga    7980
tgatgggatg ggatgcatca gtccatagct gtacaccca gtcacacaga gtaggagtca     8040
gcaaacattc gagtgccatt cagagaggag aaacacacac ccaatcctaa acctatgaaa     8100
tggcaacaac aaaaggagaa aatacatctt ttgaaaacac ggccacctac ttggaacatt    8160
ccatagtgtg acatagagta actctgttta ggattatttc gttgatcccc agaggccaat    8220
tgcccagtgc tcagtcaaag cccaaggtgg aagacaagtg cttccctgat gagctggcct    8280
ctctgcagac tgctccgtac cctgtgctgt cctgcctcag atgcagagag agcacaaggc    8340
tcctgctctc ctcgtcctcg gtgcacctgt gttcgtgcta ccatcacagc tgaatgcaat    8400
gaaaggcggt cctctgagag gagcagggtg gagatgctaa agtggaggcc ccgtcccatt    8460
gctgatagat cctcatctgg catgcgctcc accctcccca ttctctgctc ccacgtatcg    8520
tagccccatc acagaagatg cgacatggaa aaacgcactg tgtccaccct agttcttaaa    8580
tttgggcagg gatttggggt gtatgttaag agttttttcaa atttgccaga ttgtatgcct    8640
atgttgttaa atacacaatg aatccctggt atgatagcag tttctggata aacattactt    8700
gaggtcctaa aatgcagaag ggaaaaagca acttttgtca gatgcctact ttgctttcat    8760
ttcatctcta atattttgga tggggaatca tccaaagctt ctgactgcat gaaggtcagg    8820
tgtgccagtg tgcagctggg tttcttttct ggaattaaaa gtactttggg tggtggtgag    8880
ggtcagagga agaagtaaag attgtgagaa aggggaagaa acatgggctt ggggagaacc    8940
cagaattggg gccagaagac ctggcactag gctacagcac ttagcacctc tgatcttgtt    9000
tttcctcatc tgtaaaagga ggttaacaaa gcttttctgc ccacttcttg gggagaaggg    9060
aataacataa ttggtaaaaa aaaaaaaaaa aaaaaaagt tttgaaaaat aagcaacact     9120
gactttatgt aaccaagcat tattaattct ccaccccata tcactggtag atacctgtat    9180
tcaagctatc tggacatgaa agcagtcaca tttttagaagt catgaagttg atgctaataa    9240
gcctaatcta cagaaacact cttgaaagcc cttgagcgtt tgttctgtga acagaaaggt    9300
ttgagattcg gagcaagttc agagttggat ggtctaagaa tggaaaagcc ctccattcca    9360
ttagaagagc caggtagcaa tttctggtta tggaaccaga agctctcagg cttcaaataa    9420
aacagcatca cttgtactct tataaaactg taaaaacaga aagaccaaaa ccgtatctac    9480
atctgtccta taaggcagag agtacttgag atctcatgga tttaaaacca gcttacaaac    9540
tacattgcac tatatgaaga aattatcact gtgggcaaag catcaagcag agagcacagt    9600
atacagtgtg tggatgttaa tgttattccc tagccttccc attcctttgt cttggtcctt    9660
tctgcatatg gaacagttct attattaaat tttgtaatag taactgagaa cctgactttc    9720
agcaagggag tagttcggaa attgagggag tttaactctg aatgagtaaa taaaaataaa    9780
gcaattatgt cattagctta aaatttttatc atcattaaaa ataaaaagtt taaaaacaaa    9840
tacttaatgt aacaatttat caccgcgcaa tttggactca cgacaatgtg tggtgtttgt    9900
```

6679

```
cagacatgca ctgttgcaat gcagcttgac tgtcttgcag acagcctcaa tgctgttttt    9960
aaattggcag aggcagcagg ccatatggct aggtaagatc ctatagatga aaacagagag   10020
caataaatta gcggtaaagc ggttacttga gtaggtaaag gaggcagcca acgctaccac   10080
aggtgtggga aaaaggtgtc attgaagcct atggactgga cagttgggta ggaaccagaa   10140
ggccaatagg aaggaggaca aaagtgccca actgaagggt aagcatggca gtgagtatgg   10200
tatgcctaga ataaagatgg ttgggattag aattgggtga cagtgattag tagtttcaga   10260
agtatctctt cccaattcaa aagtctcact ttgggctgaa agtacagagg aagaaggtag   10320
acttttaaga agtctgaata agcccccaac ttctggagtc cctttctcaa ttcctgttgg   10380
gagtgggaaa tattataaat tactctgggc attaaaaata gcttagttta acctggattg   10440
cggagttaaa aaataacaaa gactgcattg gtcaaatctg gacaatttga gcattcaaaa   10500
gaataacaac aataagttac cacatattta atataaagaa gaatccacga agagtgatat   10560
tgaaaaagaa agaggaggag ttcttcttca atgaaataat gccagctagt aaatgtagaa   10620
ggaatgacag aatttttaaa ag                                             10642


<210> 9106
<211> 10085
<212> DNA
<213> Homo sapiens

<400> 9106
cctgaggagg gagttgtggg gacctccaat ttacagccag ttggtcagat gcataggtga     60
tgcttggcct tgcacctggg gtctgacatg cggatggttc tgtgtgactg agcccttaac    120
ctgtggagtc tggtgctcac tctgcttagg gcttctcttg ccttttttaat gtccttctag    180
gcggcctttc cttcctcttg tcagctcaga aaacttttct tccacttccc ttcttctaaa    240
ccatccctta catctactcc tttccagccg accaagagca gaaccacggc tggttccact    300
gccaccatgc tgtcccacac tgtctcctca ggatgtattc agatgtccag ccctcccccc    360
agtctaggag cccccccttt gaggaaaggg atgctggcct agtcaactct ttcccagcac    420
caggtacagc atctggcacg ttccatcttt ttcatggact ctccccaggc ggcctgacct    480
tccctcctct gaaccggtgc atttcttgtc tgcatcatgt ttgccctaat cagatatcac    540
cttatttcct cttttaaaaa atgctttgtt tctctggcag gcttcatcgg aatcacaatt    600
ttcattcatt tagtaactgt tgttgtttat tctatgtatt tttgcaggag gcctgaggtg    660
ggctgtgttc tcctcctatg gcagggcttc actctcctcc tcctccgttg gggcttcgct    720
gtccctggga taagaataac aatgccaagg ttttcattct tgaaaggagc aattaagctt    780
ctcacccct cctcatttta gatgggaact gtgagggccc catcatttac ccagggtccc    840
tgttgaggat cttgtcctca ttagatgact tcttgtgcag cttccatgca tgattatttta    900
ttcttgtggc actgagaggt ttgtacagat ctttaaacca gagcggctgt ccaaatgagg    960
aaagtccatc ctagaagata gaaagggaaa tattaatttt gcatgtcctc tgctttccct   1020
ggccacagca atgaatcctc caatgtacct gactctccct tcgcgaagag catcccctcc   1080
atggcagaaa tctgaaaatg cccctgggga gacacatgca caagacagtg agtgatgcag   1140
ccgtttccca cgtatctgac aatgtacttc tctggtctta ttaggactaa atgagtatct   1200
cagtccataa tcacagggag aaccaccacc acagaccaca tacccggggt cttgaaaata   1260
attccatgca tgtgggactt tcagaagctc tccatgtctg cccagaaggg ccccacaata   1320
tactgggggg actttgtatg tggctcagca tggagcaggg gcaggatttt cagtcccact   1380
cactcccttg gccaagtgcc cttgtgcagt gaacaaactg cacaaccatg ctgggcagaa   1440
gcattttata tcagtcccct tcggacttag tctcacaggc atcatttgat gggggatggg   1500
agatgaagtg gttcttcgtt ttctagatac tttattctat aagttggatc acctcaagca   1560
aatgcgtgag tgcagctagc caagttctct atctcacagt cttcatatgg ctggctgtcg   1620
ctgatgagtg agtgagctac gaaatcagct taaagcacaa catgttattt ttgaatttga   1680
ataaaatagg aaaaggcaga gtgcattgtg tgaccatggg gtaagtaaga cactctccct   1740
ttctccttct cagttttcct gtcataaaag acaaactac tatctaaggt ctccgtagtt   1800
aaaattcttt tttgttgttt tttttttatt tgagaaagtt tggctcattc cccaggctgg   1860
agtgcaatgg tgctatcttg gctccctgca acctgcgcct cttgggctca agcagttctc   1920
ctgcctcagc ctcccaagta gctgggatta cacgcctgcg ccaccacacc cagcgtaatt   1980
tagtatttt agtagagatg gggtttcacc atgttggtca ggctggtcac gagctcctaa   2040
cctcaagtga tcccaaagtg ctgtgattac aggcgtgagc catcctgcct ggcctttctg   2100
gttaaaattc tgtgaggttt gcataaaagg aatagagtag gggcccaaaa accagtaaga   2160
tgagaaaata gtgtttcctc agttctagga tccaggggaa aaaaaagaa ataaaagaga   2220
aaatactgtt tcctgccact taagaggaag gactcacata tcctaccttc catcagcctt   2280
gaaggagaca agtgccctct cacacccggt ggccttccct tccccttttcc cagagcctcc   2340
aagaaggccc ctggcctggc ctgatgccca ccatcagcag caataggcac caaaacctttt   2400
```

6680

```
ctccttccta tccctccccca cctcccgaaa gggctggggga cagcaggtgt gtccttgtta    2460
gttccatcca gctcagcttt ggctggggag ctaatttcac tggagccagg ctaagcatta    2520
gggtaagtat ttgtcctgtc ttgggcagtt tcctcactga aaaatgaggg cagagttcta    2580
agccctcctc taattctaaa attctaatta aaacgtcgcg agactagtgg tgcatgcctg    2640
taatcccagc tactcgggag gctgaggcag gagaatcgct tgaacctggg aagtggaggt    2700
tgccgtgagc cgagatcgtg tcattgcact ccagcctggc aacaagaggg aaactccatc    2760
tcaaaagaga agaaaaaaaa aatcaccaga ctaatattta ccttgagaat ccttcttcat    2820
cttcttgtaa tgaccttcgg tgacaacata tctgttttag aagaaaacgc aattaagatt    2880
atctatgaca acaaccacca tctccaaatc tgtattgatt ccttttattc attataagtc    2940
tcatgtacct gatgaggtaa cttttttgaa gacaggaatt gtatgctgtg taacactgct    3000
ttgattcttc catagttcag tcatccttgc tatcttgcgg gggattggtt ctaggatacc    3060
gcccccacac cataccagaa tctgtggatg ctcaatccct tacatataat ggtgtaatat    3120
ttgcttataa ccaacacgca tcccccctat actttattta cttagcgaca ggattgccct    3180
ctgttgctta cgctggagtg cagtgtcatc ctctgttact caggatggag tgcggtgtca    3240
cgatcacagc tcactgtagc ctcaacctcc tgggctccag tgatccgccc acctcagcct    3300
cttgagtagc tgagactaca ggtgcatact accacacctg gctatttttt ttttaatttt    3360
taataaagac aaggtctcac tatgctgccc aggttggcct cccaatgtgt tgggattaca    3420
agtgtgagcc accatgcctg gccccatgta atttaagtca tcactaataa aatgtataca    3480
tattgtacat tgttgacagt tgttatattg tactttctgt ttgtattttt attggttttt    3540
ttttcttcaa atattcagcc tgatctagtt gaatctgaag atgtggacct gctgatgaag    3600
agggctgact gtatctaact tagggtcttg catgcagctg gcacttaata cattttattg    3660
actgttttag ataacattca acagataatt cctaataaaa actcttaaaa gtaggagaaa    3720
aaggaaacct gagtccttcc tctgaagtgg caggaaaacc agcctgggca acatagcaag    3780
accttgtctc tacgaacaca ttttttaaat tagctgcctg cctgtagtcc cagccactca    3840
ggaagctgag gcaggaggat cccttaagcc caggagtttg atgttacagt gagctaggtc    3900
acaccattgc tctccagcct gggtgacaac aaggccctga gaagggaaaa aaaaggaaag    3960
gaaaggaaag gaaaaaggaa aagggaaagg aaggaaagag tagaagtatt ggaaaggaag    4020
agacaaaact atcattattt gcatattaaa tgataaatgt tagccaaaga agcctaagag    4080
aatcaactaa gattttactg gaagtaatga gaattcaata cagtggctat ctacaaaatc    4140
aagaaatcag cacacaaacc tcaaatactt ttcccatgta ccaccaataa ctaattagaa    4200
aatggaagaa agatcccatt tacaatggca atacaaatgt atgaagaatt taggaacaaa    4260
aatacaaaga tcttttatct aacaaaagat gtataagatc tatatatgga aacactaaag    4320
ctcttctgaa agacattaac aagaaatgaa tacatgacat gagatagcac gttcctagaa    4380
tgtcgtacag atgtaaattc tcaaattaat ctacaaattt aacgtaatcc tattcaaatc    4440
ccaagatagt ttttggtggt ggctgttttt aagacagggc ctagctgtgt tgcccaggct    4500
agagtgcagt ggtacgacca cagctcactg catcctcgac ctcccaggct caagcgatcc    4560
tcccacttca gcctctgaag tctctcatat ggtgtccaag aaatggtgac aaatctcaca    4620
aagggaccag gctcagcagg gctggaatat tcagggaagg tgtcaagaag aaagatgaac    4680
ttgagttggc ttttgagaga tgcataggac tcccacaggc agagtgaaat aagggcattt    4740
tagatggaca aacacacaga caaaagcaga aatgtgggtg gtgtgactgg ggtttggtga    4800
ggggctgctg tggctggaat ggagggctgc cacaataatg gaaatggtaa atgaggcaag    4860
taaggttgga ctggtagcat agcgtcaagg ttgccagctt tattaaatca ctcttccaat    4920
atgctagcac tggcctgttg ggaaaagtaa tacatcatgt aatcgaacaa aagacagagg    4980
caagctccag gaatgggcac tgtaaacagg acttgtccca gagtagccag atgtaggctt    5040
taggtaagtt gatgcaagct gagcatctct aatctgaggg ggaatgtctc acatggtgtc    5100
caagaaatgg tgacacatct cacagagggt ataggctcag gagggctaga gtatgagacg    5160
ttcctcctca ccagtgaact taaaaatgtg gccaaaaatt tttgtaaaag atggctactc    5220
tgtagtgctt taactggacc tatttagaca atgccttaca cactggagga tgatactgtg    5280
taaatctaat aagtctacaa gacaatacgt atgtcttttg gctctctcct tcctctccag    5340
ggtgatgaca actccgtgag ggtggagatt atacctctct catcatttca gcaacaagga    5400
aataaattag tggcagagta agggtgactt gatgagtaca tccaattgtt gacatagttt    5460
tgggtgggag aaattttgct attatatcga cttcttaaaa tagtctagtg ggattcactt    5520
ggtttcaatt cacagagatc tgaaagcgag gatcctttaa aaatcctgaa atatacactg    5580
caataaaaga acaaagcata cacctcagcc ttaaatgact gaagaagtat gtcaagtagc    5640
agcaggtggg aaagtggctt tggttttcag tttgtgagct ctgaatccac acaaagacag    5700
gactgcattc tgaaaacctg aattaattat tgtccttacc acaatgaggc agaaaagtat    5760
aatcaaaatc gttagtattc cagtaacaat taatgccaag atgagtttgt cagtatagcc    5820
atatcctgga acttcttttt tgagctaaaa aaaaaaacac acaaaaaaaa aaccagaatg    5880
agagctaact attcaaaacc ccagtattcc aggtgagtag ctgacaggtt cttttttatt    5940
tttttgaaag agggtctcac tctgtcaccc aggcttgggt accgtggtgc aatcaccgtt    6000
cactagactc gacctccctg ggctcaggtg atcctcccac ctcagccttc caagtagctg    6060
```

6681

```
ggactacagg cacgtgtcat caacccagct aattttctta tttttttgtgg agacaggctt    6120
tcactatgtt ggccaagctg gtctcaaact cctgacttca agtaatccac ccaccttcgc    6180
ctcccaaagt gctgagatta caggcgtgag ctaccacccc cggcctacag ttcatcttgt    6240
gccctaatct atttctctct ctacatgagc aaagtgggag atcactgtca tgaccaaagt    6300
tacatggcca agataagcta tggcctggga gtcccagact cttctgtgtg ggcactttcc    6360
tgggatatgc taaatgatgg gaaatctggg tctcatgttt ctgtgtggtc ctcacctcaa    6420
gcgacttctc tttctgttca ctctgggctt ctgtgctctc attaatgtag ttctcaatct    6480
tccattggtc cgtatcccat tctatcttgg atgcctttac ttcctgctgc ccactgagaa    6540
gcttcatcag gtggcctgtc ctggagatga gcttggcaca ggtcacttgc acatgggccc    6600
cagagcagtc catcttcaag gtccggataa catgagcaat gagccttctc acattgttgt    6660
tggggataag ggactgtagc tgctgggtta gctgaatttc aaactgatca cctggggacg    6720
agagcaatgg gtaattgaag cttttgggct cgggggacag gtcagtgccc acgttgttgt    6780
attcccattt tgtctcagtt tgtttaacag ttggccctaa gttgaatgca gtcccagcgg    6840
aatctgcctc aggaggatga ttgtagtttg tgttttcaga gatggttcct tctggcatgt    6900
tagtgttttc cataaaatca ttttcttcaa aggcatttct tgcagttgtg tgttttgtat    6960
tattcttctc tataaaatgt tctgaaagag cagatacttc cagaaaaggg ttttcttgag    7020
gactcaggtc tcctaaggat gaaaaagccc cttgtgaagg ggaatttatg aggctcttcg    7080
ctgcagagaa tggaagcctg tttgcgagca tcagtctact cagataactt ttctttctga    7140
cctttggact cttttttgact ttggttgttc tgtgggtcac gtgggagcga gtttttgtgaa    7200
agcggtattt ttttctggca tgtacgattg gtttagacgt cttcgtattt gtaactctag    7260
cctttgcact ttctaaaatg gaaatagcgt gggttaagtc tttcgatctg tctctcacct    7320
gtggtagggc ttttgcaggg ctggaggtag aaggcgcgcc cttggagaag ggtttcagca    7380
cagagactgc tgccttatgc tcttgggtga acgaaggctt ggtgtagacg gcgtttcccg    7440
ctaacttctc aggcccctgc tgtgtgtggg gctgttccac ctcccttggg gctggactcg    7500
tgagcctttt ttcttcggca gcgttctcca cagatgcctg ggcaccctgt tccctcctga    7560
tgctctgcct tcctacctct ttgaagtgcc ttttctggat gctccttggg cccatgagga    7620
ctctcttcac tctctgccgg ttttggccta cagtttgaat ctttgccagg ctgtttcctg    7680
tggttggcag tttaatgaac ggtagtaaca gtgatttcac atctaggttt accgctgaga    7740
aataaggcaa gatgtaactt agtgtactga taaaatcact ctcgtcattg gtgtctagct    7800
gctcactccc aaagcctgac aagttgatgc cactgctgtc tgagggctcc tctggctcaa    7860
caatcagctc agtgcttgtg tagttcttcc gggcttgtaa caccttcatg aacgctcctt    7920
ctggattccc taccgatgct tcttcagctg tcaaaaaga agagactgct ttgatcatga    7980
aagatgatgg gatgggatgc atcagtccat agctgtacac cccagtcaca cagagtagga    8040
gtcagcaaac attcgagtgc cattcagaga ggagaaacac acacccaatc ctaaacctat    8100
gaaatggcaa caacaaaagg agaaaataca tcttttgaaa acacggccac ctacttggaa    8160
cattccatag tgtgacatag agtaactctg tttaggatta tttcgttgat ccccagaggc    8220
caattgccca gtgctcagtc aaagcccaag gtggaagaca agtgcttccc tgatgagctg    8280
gcctctctgc agactgctcc gtaccctgtg ctgtcctgcc tcagatgcag agagagcaca    8340
aggctcctgc tctcctcgtc ctcggtgcac ctgtgttcgt gctaccatca cagctgaatg    8400
caatgaaagg cggtcctctg agaggagcag ggtggagatg ctaaagtgga ggccccgtcc    8460
cattgctgat agatcctcat ctggcatgcg ctccaccctc cccattctct gctcccacgt    8520
atcgtagccc catcacagaa gatgcgacat ggaaaaacgc actgtgtcca ccctagttct    8580
taaatttggg cagggatttg gggtgtatgt taagagtttt tcaaatttgc cagattgtat    8640
gcctatgttg ttaaatacac aatgaatccc tggtatgata gcagtttctg gataaacatt    8700
acttgaggtc ctaaaatgca gaagggaaaa agcaactttt gtcagatgcc tactttgctt    8760
tcatttcatc tctaatattt tggatgggga atcatccaaa gcttctgact gcatgaaggt    8820
caggtgtgcc agtgtgcagc tgggtttctt ttctggaatt aaaagtactt tgggtggtgg    8880
tgagggtcag aggaagaagt aaagattgtg agaaagggga agaaacatgg gcttggggag    8940
aacccagaat tggggccaga agacctggca ctaggctaca gcacttagca cctctgatct    9000
tgtttttcct catctgtaaa aggaggttaa caaagctttt ctgcccactt cttggggaga    9060
agggaataac ataattggta aaaaaaaaa aaaaaaaaa gttttgaaaa ataagcaaca    9120
ctgactttat gtaaccaagc attattaatt ctccacccca tatcactggt agatacctgt    9180
attcaagcta tctggacatg aaagcagtca cattttagaa gtcatgaagt tgatgctaat    9240
aagcctaatc tacagaaaca ctcttgaaag cccttgagcg tttgttctgt gaacagaaag    9300
gtttgagatt cggagcaagt tcagagttgg atggtctaag aatggaaaag ccctccattc    9360
cattagaaga gccaggtagc aatttctggt tatggaacca gaagctctca ggcttcaaat    9420
aaaacagcat cacttgtact cttataaaac tgtaaaaaca gaaagaccaa aaccgtatct    9480
acatctgtcc tataaggcag agagtacttg agatctcatg gatttaaaac cagcttacaa    9540
actacattgc actatatgaa gaaattatca ctgtgggcaa agcatcaagc agagagcaca    9600
gtatacagtg tgtggatgtt aatgttattc cctagccttc ccattccttt gtcttggtcc    9660
tttctgcata tggaacagtt ctattattaa attttgtaat agtaactgag aacctgactt    9720
```

6682

```
tcagcaaggg agtagttcgg aaattgaggg agtttaactc tgaatgagta aataaaaata    9780
aagcaattat gtcattagct taaaatttta tcatcattaa aaataaaaag tttaaaaaca    9840
aatacttaat gtaacaattt atcaccgcgc aatttggact cacgacaatg tgtggtgttt    9900
gtcagacatg cactgttgca atgcagcttg actgtcttgc agacagcctc aatgctgttt    9960
ttaaattggc agaggcagca ggccatatgg ctaggtaaga tcctatagat gaaaacagag   10020
agcaataaat tagcggtaaa gcggttactt gagtaggtaa aggaggcagc caacgctacc   10080
acagg                                                                10085


<210> 9107
<211> 4377
<212> DNA
<213> Homo sapiens

<400> 9107
tctcacccccc tcctcatttt agatgggacc tgtgagggct ccgtcattta cccagggtcc      60
ctgttgagga tctcgtcctc attagatgac ttcttgtgca gcttccatgc gtgattattt     120
actcttgtgg cactgagagg tttgtacata tctttaagcc agagcggccg tctgaatgaa     180
aaaagtccat cctagaagat agaaagggaa atactaattt tgcatgtcct ctgccttccc     240
tggccacagc aatgaatcct ccaatgtacc tgactctccc ttcgtgaaga gcatctcctc     300
cgtggcagaa acctgaaaat gcccctgggg agacacatgc acaagacagt gagtgatgca     360
gccatttccc acgtatctca caatgtactt ctctggtctt actaggacta aatgagtatc     420
tcagtccata atcacaggga gaagaaccac cacagaccac atacctgggg tcttgaaaat     480
aattccatgc atgtgggact ttcagaagct ctcccatgtc tgtccagaag ggccccacaa     540
tataatgggg ggactttgta tgtggctcag catggagcag gggcaggatg ttcagtccca     600
ctcactccct tggccaagtg cccttgtgca gtgaacaaac tgcacaacca tgctgggcgg     660
aagcatttta tatcagtccc ctttggactt agtctcacag gcatcatttg atggggggggt     720
gggagatgaa gtggttcttc cttttctaga tactttattc tataagttgg atcacctcaa     780
gcaaatgtct gagtgcagct agccaagttc tctatctcag tcttcatacg gctggctgtc     840
gctgatgagt gagtgagcta cgaaatcagc ttaaagcaca acatgttatt tttgaatttg     900
aataaaatag gaaaaggcag agtgcattgt gtgaccatgg ggtaagacac tctcccttttc     960
tccttctcag ttttcctgtc ataaaaggac aaactactat ctaaggtctc cgtagttaaa    1020
attctttttt gttgtttttt ttatttgaga cagtttggct cattccccag gctggagtgc    1080
aatggtgcta tcttggctcc ctgcaacctg tgcctcctgg gttcaagcag ttctcctgcc    1140
tcagcctccc aagtagctgg gattacaggc ctgcgccacc acacccagct aatttagtat    1200
ttttagtaga gatggggttt caccatgttg gtcaggctgg tcacgagctc ctaacctcaa    1260
gtgatcccaa agtgctgtga ttacaggcgt gagccatcct gcctggcctt tctggttaaa    1320
attctgtgag gtttgcctaa aaggaataga gtagggacac aaaaaccagt aagatgagaa    1380
aatagtgttt cctcagttct aggatccagg ggaaaaaata aataaataaa agagaaaata    1440
ctgtttcctg ccacttaaga ggaaggactc acatatccta ccttccatca gccttgaagg    1500
agacaagtgc cctctctctc acacccggtg gccttccctt ccccttttccc agagcctcca    1560
agaaggcccc tggcctgcct gatgcccacc atcagcagca ataggcacca aaacctttct    1620
ccttcctatc cctccccacc tcccgaaagg gctggggaca gcaggtgtgt ccttgttagt    1680
tccatccagc tcagctttgg ctggggagct aatttcactg gagccaggct aagcattagg    1740
gtaagtaagt atttgtcctg tcttgggcag tttcctcact gaaaaatgag ggcagagttc    1800
taagccctcc tctaattcta aaattctaat taaacgtcg cgagactagt ggtggtgcat    1860
gcctgtaatc ccagctactc gggaggctga ggcaggagaa tcgcttgaac ctggtaagtg    1920
gaggttgccg tgagccgaga tcgcgtcatt gcactccagc ctggcaacaa gagggaaact    1980
ccgtctgaaa agaaaagaaa aaaaaaaatc accagactaa tatttacctt gagaatcctt    2040
cttcatcttc ttgtaatgac ttcggtgaca acacatctgt tttagaagaa aacgcaatta    2100
agattatcta tgacaacaac caccatctcc aaatctgtat tgattcattt tattcattat    2160
aagtctcatc tacctgatga ggtaactttt ttgaagacag gaattgcata ctgtgtaaca    2220
ctgctttgat tcttccatag ttcagtcatc cttgctatct tgcgggggat tggttctagg    2280
ataccgcccc cacaccatac cagaatctgt ggatgctcaa tcccttacac ataatggtgt    2340
agtatttgct tataaccaac acgcatcccc cctatacttt atttacttag cgacaggatt    2400
gccctctgtt gcttacgctg gagtgcagtg tcatcctctg ttactcagga tggagtgcgg    2460
tgtcatgatc acagctcact gtagcctcaa cctcctgggc tccagtgatc cgcccacctc    2520
agcctcttga gtagctgaga ctacaggtgc atactaccac acctggctat tttttttttt    2580
aatttttaat aaagacaagg tctcactatg ctgcccaggt tggcctccca atgtgttggg    2640
attacaagtg tgagccacca tgcctggccc catgtaattt aagtcatcac taataaaatg    2700
tatacatatt gtacagtggt gacagttgtt atattgtact ttctgtttgt attttattg     2760
```

6683

```
ttttttttc  ttcaaatatt  cagcctgatc  tagttgaatc  tgaagatgtg  gacctgctga      2820
tgaagagggc  tgactgtatc  taacttaggg  tcttgcatgc  agctggcact  taatacattt      2880
tattgactgt  tttagataac  attcaacaga  taattcctaa  taaaaactct  taaaagtagg      2940
agaaaaagga  aacctgagtc  cttcctctga  agtggcagga  aaactagcct  gggcaacata      3000
gcaagacctt  gtctctacaa  acacattttt  taaattagct  gcctgcctgt  agtcccagcc      3060
actcaggaag  ctgaggcagg  aggatccctt  aagcccagga  gtttgatgtt  acagtgagct      3120
aggtcacacc  attgctctcc  agcctgggtg  acaacaaggc  cctgagaagg  gaaaaaaaag      3180
gaaaggaaag  gaaaggaaaa  aggaaaaggg  aaaggaagga  aagagtagaa  gtattggaaa      3240
ggaagagaca  aaactatcat  tatttgcata  ttaaatgaaa  aatgttagcc  aaagaagcct      3300
aagagaatca  actaagattt  tactggaagt  aatgagaatt  caatacagtg  gctatctaca      3360
aaatcaagaa  atcagcacac  aaacctcaaa  tacttttccc  atgtaccacc  aataactaat      3420
tagaaaatgg  aagaaagatc  ccatttacaa  tggcaataca  aatgtatgaa  gaatttagga      3480
acaaaaatac  aaagatcttt  tatctaataa  aagatgtgta  agatctatat  atggaaacac      3540
taaagctctt  ctgaaagaca  ttaacaagaa  atgaatacat  gacatgagat  agcacgttcc      3600
tagaatgttc  tacagatgta  aattctcaaa  ttaatctaca  aatttaacat  aatcctattc      3660
aaatcccaag  atagttttg  gtggtggttg  tttttaagac  agggcctcgc  tgtgttgccc      3720
aggctagagt  gcagtggtac  gaccacagct  tactgcattc  tcgacctccc  aggctcaagc      3780
gatcctccca  cttcagcctc  tgaagtctct  catatggtgt  ccaagaaatg  gtgacaaatc      3840
tcacaaaggg  actaggctca  gcagggctgg  aatattcagg  gaaggtgtca  agaagaaaga      3900
tgaacttgag  ttggcttttg  agagatgcat  aggactccca  caggcagagt  gaaataaggg      3960
cattttagat  ggacaaacac  acagacaaaa  gcagaaatgt  gggtggtgtg  actggggtat      4020
ggtgaggggc  tgctgtggct  ggaatggagg  gctgccacaa  taatggaaat  ggtaaatgag      4080
gcaaataagg  ttggactggt  ggcatagcgt  caaggttgcc  agctttatta  aatcactctt      4140
ccaatatgct  agcactggcc  tgttgggaaa  actaatatat  catgtaatcg  aacaaaagac      4200
aaacagaggc  aagctccagt  aattgtcact  gtaaacagga  cttgccccac  agtagccaga      4260
tgtaggcttt  agataagttg  atgcaggctg  agcatctcta  ttctgagggg  gaatgtctca      4320
cgtgctctcc  aacaaatcct  gacacctctc  acaaacgctc  taggctcccg  agggcta       4377


<210> 9108
<211> 1562
<212> DNA
<213> Homo sapiens

<400> 9108
ttttattttg  tcacccaggc  tgaaatacag  tggcaaaatt  atacctcaat  gcagcctcaa        60
cccccctggg  ctcaagggat  cctccaaatt  cagcctcctg  agtagctggg  agtataggct       120
tgcaccacca  tgcccagcta  attttttttt  tttttttgta  cttttgtatt  ttcagtagtg       180
acagagtttc  cccatgttgc  tcaggctggt  gtagaactcc  tgggctcaag  caatcctccc       240
acctcggcct  tccaaagtgc  tgggattaca  agtgggagcc  actgtagcca  gcaaaataat       300
tacaatggag  agacctggaa  gatcacctta  gtcaagtgat  caaacttagt  attacaggcc       360
atctgcggtt  acgaggcagg  aaggatacat  cacctatgca  gtattttcc  caaaaatgct       420
taacttgaat  ttcatcatga  ggaaacagac  aaatctggat  tgtgggacaa  tttacaagac       480
aactatcttt  gactcttaaa  aaatgccagt  gtcatgaaag  atcaaagaaa  gtagaggcat       540
gttttagatt  aaaggaaatg  aagacatgac  atgcagtgcc  tgatctttga  ttggattctg       600
tactattctt  tcatctttct  ggcttgtttg  aattttttcc  aatacgtaaa  tttgggcaaa       660
agaggtgacc  gagacaattg  attaatttat  tgttgtggct  tattgggggc  actttcagag       720
agataaaaac  aatccctgta  actgaagtaa  aaggttaatc  ttaggcagta  tagcatggtc       780
attaagaata  cagattccat  agccagacta  tgcttcaatc  tcagctctgc  taataatgtg       840
aatttgggca  aattgtttaa  tctctgttcc  ttggccttgt  cattataata  gtacctacct       900
ctaatgaatt  ttgaggatca  aatgaatcaa  tacctgaaaa  atgcctggtg  cacagtgagt       960
gctcaataag  agttaactat  aattattgtg  ttgcagaggt  tgtggggggc  cttttctgag      1020
tcctccaaaa  ggatggcttt  attggggcca  tattaagact  atgaaaacag  aagagggttt      1080
catggataca  agaagtctgt  gagttggggg  tacaatgtat  agagttttag  attaaaactg      1140
catccaataa  gttggcctga  gacatctttc  aaacctataa  aggaacaatc  acaagtgact      1200
agtagtattc  cttttgggtcc  agtggaagcc  tctgatcttc  atatggaatg  gacccggaac      1260
cgtaacccag  catttgttg  tatagcaacc  ttacctctgc  cacaaaggtg  tttcttttgt      1320
ttattttgag  gccgggtctc  gctctgttac  acaggctgag  tgcagtggtg  caatcttggc      1380
tcactgcagc  ctctgtctcc  tgtgctcaag  tgatcctccc  acctcagcct  cctgagtacc      1440
tagaactaca  ggtgtgtgcc  accacacctg  gctaattttt  gtatatttg  tagaaatggg      1500
gtttcaccat  gttgtccagg  ctggtctcga  actcctgggc  acaagcaacc  ctctctcttt      1560
```

6684

<210> 9109
<211> 992
<212> DNA
<213> Homo sapiens

<400> 9109
```
taattgccta tatacaaccc tttttgtttt gaaatatcta gagtaatttc tgttttccta      60
tctggggtag tgtaacataa gaagaaatat atatttggtc tctgccccca gttcctaaca     120
caaagctcct aaaacccttg gaaattcctg aatgatggcg gtgctaagag cattgtcctt     180
tgttaattta tcattttct tttctcctag gtgtttttc cttttaaac tttctttta     240
ggttaggggg tacatatgca cgttcgttat atagctaaac ttgtgtcatg ggggtttgtt     300
gtacagatta tttcatcacc caggtaccaa gcctagtacc caatagtttt ttctgctcct     360
ctccctcctc ccaccctcca ccctcaggta gggcccagtg tctgttgttt atgagttctc     420
atcattttgc tcccacttaa aagaacatac agtatttggt tttctgttcc tgtcttagtt     480
tgctgaggat aatggcctct agctccatct gtgttcctgc aaaagacatg atctcgctgt     540
tttttatggt tgcacatctt ttgttctaac atttggtcct taaacctggt tcctgacaca     600
gagctcctaa atcccttgga attttctggg tgatagaagc gtcctttgtt ctcatgaggt     660
gactcttggt gggctcctta tttggggact ggtcaccaaa aagacctatg gttggaagcg     720
ttgtgctgtc agccccattc cccatcctct ggcgtgggga gtagagctgg agctcaatca     780
tgcctacgtg ataaagcctc cagaaaactc cttaaaagac aggacttgga gagcttccgg     840
gttggcgaac acatccatgt tccaggagag tggtgcaccc caactccaca aggacccttc     900
caaacctcac cctgtgtatc tcttcaactg gcttcatcat ttgtgtcctt taaaatatcc     960
tttgtaataa atcagcacta gtaagaaaac tg                                   992
```

<210> 9110
<211> 261
<212> DNA
<213> Homo sapiens

<400> 9110
```
gcatggcagt gagtatggta tgcctagaat aaagatggtt gggattagaa ttgggtgaca      60
gtgattagta gtttcagaag tatctcttcc caattcaaaa gtctcacttt gggctgaaag     120
tacagaggaa gaaggtagac ttttaagaag tctgaataag cccccaactt ctggagtccc     180
tttctcaatt cctgttggga gtgggaaata ttataaatta ctctgggcat taaaaatagt     240
ttaacctgga ttgcggagtt a                                               261
```

<210> 9111
<211> 2269
<212> DNA
<213> Homo sapiens

<400> 9111
```
ggccgggcat ggtggtgggt gcctgtaatc ccagctattc gggaggctga ggcaggagaa      60
tcacttgaac ctggaaggca gaggttgcag tcaaccgaga tcacgctgct gcactccagc     120
ctgggtgaca gagactgtct ccaaaaacaa acaaacaaac aaaacacaaa aaaaaccca     180
aaacccaaaa caagccaggc gcggtagctc gcacctgtaa tctcagccct ttgggaggcc     240
agggcgggtg gattacctga ggtcaggagt tcgagaccag cctgaccaac atggtgaaac     300
cccatctcta ctaaaaatac aaaaattagc cgggcatggt ggtgcatgcc tgtaacccca     360
gctactaggg aggctgaggc aggagacttg cttgaaccca ggaggcggag gatgcagtga     420
gctgagatcg tgccattgca ttccagactg agcaacaaga gcaaaactcc accttaaaag     480
aaaaaaaaa agaaaaaaaa acaaacaaaa ctcctgaatt tccctgtgga tacctttct     540
ctggcagcct ttttcaatga gggctaagtt ttctccaata ctatatggcc tgcagaccgc     600
tcagctttca ttccagtgaa aacattccag aaaaaactct gaatcaatcc caggtgtttc     660
tccaatcagc tcaggatgat tgtgtgttac ctgctgccca gccagtgaca cctctccagg     720
cctctgactt agctaggtct ccaccatgtg actccaccat agactcccca ccttcttctt     780
ttgcaaagcc tcagacaccc aaacacctac caaaagtggg tagggcacca ggacactcca     840
```

```
agtgtaagtg gggctctcca gcacacctgg atgtggaggt gtgatgcaga gtggtggctg    900
ctcgtgacac tcatttcacc cctttctgtg caggtgccag aagcccagga agcacacatc    960
aaggctcact tgccagcggg gtgctgccaa taaaatgtag tcacgtggaa tttggaatgt   1020
ggaaaggagg tagaagtcat cctttcctcc cccatagcag caggtgtgca ggctctggtg   1080
gtcagctgga ctccatactc ccccaccagt caccagcctg gggaccgtgg ggctgcaagg   1140
acctcagcag cggtttccca agtttcctga cttcttccat cctctggaaa tcagctgtgg   1200
taaagtagcc tgaaagccag tggtgcaacc ccatccccac aaccttcacc acctctagca   1260
cctccagtga taagcactaa ttgcctatat acaacccttt tttgtttgaa atatctagag   1320
taatttctgt tttcctatct ggggtagtgt aacataagaa gaaatatata tttggtctct   1380
gaccccagtt cctaacacaa agctcctaaa acccttggaa attcctgaat gatggcggtg   1440
ctaagagcat tgtcctttgt taatttatca ttttttctttt ctcctaggtg ttttttcctt   1500
tttaaacttt cctttaggt tagggggtac atatgcacgt tcgttatata gctaaacttg   1560
tgtcatgggg gtttgttgta cagattattt catcacccag gtaccaagcc tagtacccaa   1620
tagttttttc tgctcctctc cctcctccca ccctccaccc tcaggtaggg cccagtgtct   1680
gttgtttatg agttctcatc attttgctcc cacttaaaag aacatacagt atttggtttt   1740
ctgttcctgt cttagtttgc tgaggataat ggcctctagc tccatctgtg ttcctgcaaa   1800
agacatgatc tcgctgtttt ttatggttgc acatcttttg ttctaacatt tggtccttaa   1860
acctggttcc tgacacagag ctcctaaatc ccttggaatt ttctgggtga tagaagcgtc   1920
ctttgttctc atgaggtgac tcttggtggg ctccttattt ggggactggt caccaaaaag   1980
acctatggtt ggaagcgttg tgctgtcagc cccattcccc atcctctggc gtggggagta   2040
gagctggagc tcaatcatgc ctacgtgata aagcctccag aaaactcctt aaaagacagg   2100
acttggagag cttccgggtt ggcgaacaca tccatgttcc aggagagtgg tgcaccccaa   2160
ctccacaagg acccttccaa acctcaccct gtgtatctct tcaactggct tcatcatttg   2220
tgtccttaa aatatccttt gtaataaatc agcactagta agaaaactg                 2269


<210> 9112
<211> 2736
<212> DNA
<213> Homo sapiens

<400> 9112
gccaccatgc ccggcctaga ttaaaaattt gaagacatat tctctactat gagccaatga     60
aattactcat tttgtttcta tcccatttgc tgtcccttgc ttttggaatt ttgtgtctta    120
gtgtgactgt gattctttct ctccttttgt ctttcagcaa acggggattc agcgtccgat    180
cctttggaac agggactcac gtgaagcttc caggaccagc tcccgacaag cccaatgttt    240
atgatttcaa aaccacatat gaccagatgt acaatgatct tcttaggaaa gacaaagaac    300
tgtatcccag cgggttgccc tttaaaaacc ccccgtgtgg tcctccctgg aaggtgttac    360
gtgtggctcg ggcacaggag gcgtgtcacc ctgtgcagtg cacacactgg ctcctctgtc    420
tttgcgagag cttggtttct attcctggtg cacgtcggat cgtccacggg ttagttccag    480
tgccacccat ggcagtaggc gtggtgaggc gcacagacac ggtgtggggt tcaccctgac    540
gtggttcagc agagggtcgt gacatagcgt agaccaggga tgcttaggtg aggaggtgga    600
acccacaaaa tcccattgct tttcacactg cagggctgcc ccgttatttc ctttgcaggt    660
tggtgtgcgt gcgtgtgtgc gtgcgtgcct gatacacatg gagccgggct gcttcacaca    720
tctggtgagg tcgttagaag gtcagataaa gaagagggcg gagcttgcta accaagctgt    780
tagaagaaat aatgggagag aacattcctt catttcagga ggacacagag caggctaggt    840
ctgccgcgaa gactcctata gagagaagag tattcttaaa ctagattctg atggacgcaa    900
caccagttgc ataatggtta tgacaatcag tgcccgggtt tttgaccagg catttcatgg    960
tcacccccac gctaatggaa agttctggga tcttatttg ttatagtgag tgatttgtag   1020
ttttcagaac ggaggccagg ccaaacgtat tccaaatgaa aagagaatag gtgtcaaatg   1080
ctaaaccttt tatcttcgtg ttggcactgt tgccatcccc gcctctccc gacatccccg   1140
cccttgacca gcatctctgg ccttgcccag cattgtctat gtattggcac tcttgccatc   1200
cccgcccttt cccagcagag tctcactgtg tcaccccggc tggagtgcag tggcgagatc   1260
ttggctcact gcagactcac tgcaacatcc acctcccggg ttccagtgat tctcctgctt   1320
cagcctcctg ggtagctggg attacaggca cgcgccacca cacctggcta atttttgtat   1380
tttttagtagt cacagggttt caccatgttg gccaggctgg tcttaaactc ctgacttcag   1440
gtgatccacc ctcctcgtcc tcccaaagtg ctgggattac aggcgtgagc caccatgctc   1500
agccctactc ttgtattttt ttttttttt ttttttgag atggagtcag agtctcaccc   1560
tgttgcccaa ggtggagtgt agcggcttga tctcagctca ctgcaacctc ccctcccaa   1620
gttcaagcga ttctctgcct cagcctcccg aatagctggg attacaggca tccgctgtca   1680
tgcctggcta atttttgtat ttttagtaga cggggggtt tcaccatctt gaccaaactg   1740
```

6686

```
gtcttgaact cttgacctcg tgatccagct gcctcggcct ctcagagtgt tgggattaca    1800
ggcgtgagcc accatgcctg gcctcttgga atatttaata agctaaaaaa ttcttataca    1860
caggtagatt aattaggtag ccaggagtgg cccctgaaag tatgtctggc aaaacctaga    1920
actgcatcct agccatcact gtaccttctg ccctccctgc tgtctcctct gccagttaca    1980
gttaaaaggt tgtgggtgag gacgctgggc agagtcccag gcgtctgctg tcagctcccc    2040
agcccggcct gcctgccgag ccatctgggc gtcccacggt ggagagtgtg gtgcttgtga    2100
cgcggtggtg ctgggagcca tcctggtggc agatgtgggc tctcactgca agtcagtgta    2160
agtccccagg gactgtcagc agcacgtcct gctgcccctc tctctgcaga agccctggta    2220
acctgcgttt ggaaaaatct ctaaggattt ctgaggagct gtcaggccat gtccttgtcc    2280
accctgtgtg gggcacggct tcgacatggc tctgctcccg tcgtgggctg agaaggagca    2340
ggtggggctg tgccttggaa aggaggccct cccgacatgc ctttgtgcga ggtccctgtc    2400
catgctgtct ccatcccgga gccttacggc gatgggtggc cacagagcct attccaagag    2460
tctggtttag ggctgggtct tcccatcttc acctctgagt cttaggcgat gcgtgaccac    2520
gcagcccctt ccaggagtct ggtttagggc tgggtcttcc catcttcacc tctgagtctt    2580
aggcggtgca tgaccacgca gcccctтccc ggagtctggt ttagggctgc gtgctcaaga    2640
gtctggtttg gggctgggtc ttcccatcgc cctggaggag gcttttgtct catctcatga    2700
ttcacattaa actctgtgcc atgaagctta gcctga                              2736
```

<210> 9113
<211> 277
<212> DNA
<213> Homo sapiens

<400> 9113
```
ctgtcgccca ggctggagtg cagtggtgct atctctgctc actgcaagct ccgcctcccg      60
ggttcacgcc attctcctgc ctcagcctcc cgagtagctg ggactacagg tgcccgccac     120
cgcgcccggc taattttttg tattttтagt agagacgggt tttcaccgtg ttagccagga     180
tggtcttgat ctcctgcctt catgatccgc ctgccttcat gatccgcctg ccttcatgat     240
ccgcctgcct tggcctccca aagtgctggg attacag                              277
```

<210> 9114
<211> 5060
<212> DNA
<213> Homo sapiens

<400> 9114
```
ccgggattcg ccctccgggg agcgattggt cctcgggagg ggcggggagg tggacgcggg      60
taccggcggt cgtcgggtcg gcagcctttg gtcagttggc agcggcaagc gcgctgcggt     120
tccggtggcg ccatgtcgtt ctgcagcttc ttcgggggcg aggttttcca gaatcacttt     180
gaacctggtt ggtcctgcgg cctctcgctg ggagggcagc gcggcggggg gcgcgcatta     240
gcggggggcgc cgccgtcgtc cggggggtgat gtctctccca agccgggaat gggggcgaat     300
gtggctgccg gggagaagcg aacaggggtc aaaaggactg cggaggagtg gggagcctgg     360
gggcgaggag agtggggtac ccgaggagag ggggccttgg ggctcaccgt cctggagggg     420
gcaggcctcg agtgtgaacg tgccgtttcg ggggtgggtc taagggatcg ggatacgtgg     480
gggtggtacc ccttccctac cccctacact ccaaagtgat ggcgctgggg gaattcgggt     540
tagggtcggg gcttcggaga ggccaggttc ttgtccaggg ccagctcctg tggccggggc     600
gccccttcgc gggtcatccc gcaggtgtta ccctggccct tcccattccc ccgagtccgg     660
gatctctggg aggagtctgg caagcataga atgtcccctt cagatcctaa tgtgccggcc     720
caggtgcctc cccacctgcc cagggactcc aaattgggga accaggagtg ccaccaggca     780
cctgccaaca gcccgtgaag tttgaccagg caggcaggat ggggtggttt ggggcatggc     840
cagccctcca cactggccct gatgaatccc ttctgggctg ggctcgcctg gtagtggact     900
aatttggtaa aaacacatcc acaggcaagt ctgagtgcac tggtctcctt gggcggatct     960
gctgggtggc acccctgtag cgggttgggc tgtgacacag gaccatcccg gcaaagcctc    1020
ccccagcaag actctctggc tttagatccc agttgtcctc aggctgctct gccaagccag    1080
aaactccact tccacagcag ctgctggctt ctctttgctt ttttctccag ttcctggaaa    1140
aggctgggta gtttacagtc tccaggggag gctgtcccca ggtgatgggt gagaggtgac    1200
tcagcacccc tggaggttcc tgttttcagt ccttaaaaca gttctgcaag tcagtttttgc    1260
aactttccca ccccctccac tccaaaggga tcctttgtgg gtaggctgaa atctgttgtc    1320
cccagccctc tttcttcctg ggctcctgtg tggcctggag gccttttctc tgggactgtt    1380
```

```
ctcttcctgc ctggagagca gagcagtgcc tgggtatcca gcttagggcc tcgttgggca   1440
gcagggagga ccacttgaga aaggagaggg accaggtggt tgggccacat cagggcccct   1500
gccctctatg ttcctggggg aactaggggg gcgagggggga gctccgtgtc ctcattggac   1560
tacccaggtt ccttcacgct gcacacactt gtagctgagt gtctgcatca ccaagcaaag   1620
atggaaatgt taggatatgc cccgtcacgg ggctatgaga agaatcaagg agataattgt   1680
gaaaggtgac tcccctggtc tctggcacat ctactaaacg tgagctcagc acagcgcctc   1740
ccgtggcggg tgcctgggga aggagcacag cctaccctcg gaacgggggc agcgctgtct   1800
ttgcctgggt tggtggattt gggagcttga ccccggaaag gcgggagctg atgactccac   1860
atttgcctct ccttccacca caggcgttta cgtgtgtgcc aagtgtggct atgagctgtt   1920
ctccagccgc tcgaagtatg cacactcgtc tccatggccg gcgttcaccg agaccattca   1980
cgccgacagc gtggccaagc gtccggagca caatagatct gaagccttga aggtgagagg   2040
ccacaggggt ggggggaggga cggggggcggc cagggagagc agagagccag tcccaccttc   2100
ctccctctgc ttgccccaca gctccagggg cttagaggcg tctattccag gcctgttgcc   2160
tctgccaggg agctgccacc ccaggctatc gggagagcct ggccttctgg tgcaaatgtg   2220
ggaaacagga caggtttcct gtacgggctc caggacaaag gtcaacctct tatgtcggcg   2280
gtcagcttgg gaaataggcg tgtgggaaga aacaccatct gccagcccca gtaagggcct   2340
tcactgtggc tgtatcatgg ccagaagctc acccagctgc cttgtgatct ttccaggtgt   2400
cctgtggcaa gtgtggcaat gggttgggcc acgagttcct gaacgacggc cccaagccgg   2460
ggcagtcccg attctgaata ttcagcagct cgctgaagtt tgtccctaaa ggtgagcttg   2520
ctttgcacag ctggggccag gcctgttggc ctttgagccc aggctggggg cccagtgtt   2580
tgtgcttgtc cacttaccat gacaaggtat ggggccacca agtcacgctg cctgggaact   2640
gtccaggatc ccccagaaag gtggctgcag cgcaggggca aaggagctgg tgttccgctt   2700
cctcgcttgg ttgatcatga ctgtcccaaa aaggggcttc agcgtgagaa tgtggcaaat   2760
ggttttcctc agaggcctgg cctttcccag aggctagagt caggggcggg gcaggcagag   2820
cctgaggccc cagtctgtgc ggctgtgtct cccactggct aggactgtgg ccttgcttct   2880
tagccgctca gagcctgcct cctcctctgc agagtggcgg tggtagcagg gctgtgagga   2940
cagctgcgtg tcacgtgcac ctgggcctgg cacacaataa tagcttgatg aatcctcatc   3000
cttttttttt tttttctga gatggagtct tgctctgtcg tgcaggctgg tgtgcagtgg   3060
cgcgatctca gctcactgca acctctgcct cctggttcaa gcaattctcc tgtcttggcc   3120
tcccaagtag ctgggattgc aggcacgcat caccacgccc agctaatttt tgtattttta   3180
gtagatacgg ggtttcacca tggtggccag gctggtctta aactcctgac ctcaggtgat   3240
ctgcccacct tggcctctca aagtgctcga attataggca tgagccacca cgcccagccc   3300
acacctggtt aattttaat tttttttttt tttttggtga cagagtcttg ttctgtcacc   3360
caggctggag tgcaatggcc aatctcagct caatgtagcc tctgcttccc aggttcaagt   3420
gattcttctg cctcagcctc ccgagtagct gggattacag gctcccacta ccgcgcctgg   3480
ctaatttttg attttttagt agagacgggg tttcaccatg ttagccaggc tggtctggaa   3540
ctcctgacct gaggtgatct gcctgtctca acctcccaaa gtgccgggat tataggcgtg   3600
agctaccgca cccagccaat ttttaaaatt tttatagaga tggggggtctc actatgtggc   3660
ccaggctggt cttgaactcc tctgggcctt ggcctcccaa ggtgctggga ttacaggctt   3720
gagccactgc ctcgcctgaa atggggctgt aacagcaca cgcttgtggc catcaccgtg   3780
ctgtggggtt gagcgagcag cctgtcagga tctggtgcgt ggtaaacctg cgatgttttc   3840
gtccttttgt tgttatttgt cctccgtgtg agtggaggga aagagattc tgggttctcc   3900
tgtggatgtc agaacaaaat ggggtacaca gactcccctg agtcgggcat ctggtctttt   3960
cagctcccct gtggcctgca ggccagggca gagtgtgaaa gcgcaggaa cggcacctga   4020
agctctgcct tgcagtgact tgctttctgc ccctaccctg gctttccacc gcccccgcgc   4080
ccggctttcc gcccctgctt gctttctgtc cccgcatact ttccgccccc tctcctctct   4140
ttcaggcaaa gaaacttctg cctcccaggg tcactaggcg ggcagcccac acccacccca   4200
gacggccacc acactgaggc cacacgttgg ccattccacc ttggagttgg aaccctgggc   4260
gtcgagacag gaaggcaggg cgcagtggtt gaaacatcag gacactccca aggccccggc   4320
tctgaacaag accttttcgt ttcttggaaa agagactcat ttgctgatgg ttcatgcctt   4380
ctgctgggac aggcctgggc tgtgcagcca cactgtcggc tgacttagcc ccctgctcac   4440
tctaggtgcc tccaggaggt gagccctggg tgcagctggt ctctgaatga cgttacaccc   4500
tcaccttctt ttcctggccc tgtctctgga ctctcccctg tgaggcccaa ttccaagaca   4560
gactctcgtc ctcaccgaag cttaggccca catctcccag gctgcttagg agacagaatg   4620
gaaacggagg ccgcccctgc cagccgccct ggccctggtc actgcatgat ccgctctggt   4680
caaacccttc caggccagcc agagtgggga tggtctgtga cctgctggga aggcaggctg   4740
atggggcaca cccttggcct ctcgtccacg aggggagaaa cctaaaccct gtttcacaat   4800
ctgtgcggaa gtagcttgcc tcacttctgc ttaggaaagc ggctgttgct ccataactct   4860
aaccagcaca gggctgaggc ctgcagtgca cacctgcagg gaggcccttc ccaaggtgtg   4920
gtgactgtgc cttactgtac atgctcggag gcctggccat ataggagggt gggtgatgct   4980
gaaatcaccc cccatcttaa gtaattactt tctggagtaa tcaggtggaa atccatagac   5040
```

aaatgaaaca ttcagatgta   5060

<210> 9115
<211> 5060
<212> DNA
<213> Homo sapiens

<400> 9115
ccgggattcg cccctccgggg agcgattggt cctcgggagg ggcggggagg tggacgcggg   60
taccggcggt cgtcgggtcg gcagcctttg gtcagttggc agcggcaagc gcgctgcggt   120
tccggtggcg ccatgtcgtt ctgcagcttc ttcggggggcg aggttttcca gaatcacttt   180
gaacctggtt ggtcctgcgg cctctcgctg ggagggcagc gcggcggggg gcgcgcatta   240
gcggggggcgc cgccgtcgtc cgggggtgat gtctctccca agccgggaat gggggcgaat   300
gtggctgccg gggagaagcg aacaggggtc aaaaggactg cggaggagtg gggagcctgg   360
gggcgaggag agtggggtac cctaggagag ggggccttgg ggctcaccgt cctggagggg   420
gcaggcctcg agtgtgaacg tgccgtttcg ggggtgggtc taagggatcg ggatacgtgg   480
gggtggtacc ccttccctac ccctacact ccaaagtgat ggcgctgggg gaattcgggt   540
tagggtcggg gcttcggaga ggccaggttc ttgtccaggg ccagctcctg tggccggggc   600
gcccctccgc gggtcatccc gcaggtgtta ccctggccct tcccattccc ccgagtccgg   660
gatctctggg aggagtctgg caagcataga atgtccccctt cagatcctaa tgtgccggcc   720
caggtgcctc cccacctgcc cagggactcc aaattgggga accaggagtg ccaccaggca   780
cctgccaaca gcccgtgaag tttgaccagg caggcaggat ggggtggttt ggggcatggc   840
cagccctcca cactggccct gatgaatccc ttctgggctg ggctcgcctg gtagtggact   900
aatttggtaa aaacacatcc acaggcaagt ctgagtgcac tggtctcctt gggcggatct   960
gctgggtggc acccctgtag cgggttgggc tgtgacacag gaccatcccg gcaaagcctc   1020
ccccagcaag actctctggc tttagatccc agttgtcctc aggctgctct gccaagccag   1080
aaactccact tccacagcag ctgctggctt ctctttgctt ttttctccag ttcctggaaa   1140
aggctgggta gtttacagtc tccaggggag gctgtcccca ggtgatgggt gagaggtgac   1200
tcagcacccc tggaggttcc tgttttcagt ccttaaaaca gttctgcaag tcagttttgc   1260
aactttccca cccctccac tccaaaggga tcctttgtgg gtaggctgaa atctgttgtc   1320
cccagccctc tttcttcctg ggctcctgtg tggcctggag gcctttctc tgggactgtt   1380
ctcttcctgc ctggagagca gagcagtgcc tgggtatcca gcttagggcc tcgttgggca   1440
gcaggagga ccacttgaga aaggagaggg accaggtggt tgggccacat cagggcccct   1500
gccctctatg ttcctggggg aactagggggg gcgaggggga gctccgtgtc ctcattggac   1560
tacccaggtt ccttcacgct gcacacactt gtagctgagt gtctgcatca ccaagcaaag   1620
atggaaatgt taggatatgc cccgtcacgg ggctatgaga agaatcaagg agataattgt   1680
gaaaggtgac tcccctggtc tctggcacat ctactaaacg tgagctcagc acagcgcctc   1740
ccgtggcggg tgcctgggga aggagcacag cctaccctcg gaacggggggc agcgctgtct   1800
ttgcctgggt tggtggattt gggagcttga ccccggaaag gcgggagctg atgactccac   1860
atttgcctct ccttccacca caggcgttta cgtgtgtgcc aagtgtggct atgagctgtt   1920
ctccagccgc tcgaagtatg cacactcgtc tccatggccg gcgttcaccg agaccattca   1980
cgccgacagc gtggccaagc gtccggagca caatagatct gaagccttga aggtgagagg   2040
ccacaggggt ggggggaggga cggggggcggc cagggagagc agagagccag tcccaccttc   2100
ctccctctgc ttgccccaca gctccagggg cttagaggcg tctattccag gcctgttgcc   2160
tctgccaggg agctgccacc ccaggctatc gggagagcct ggccttctgg tgcaaatgtg   2220
ggaaacagga caggtttcct gtacgggctc caggacaaag gtcaacctct tatgtcggcg   2280
gtcagcttgg gaaataggcg tgtgggaaga aacaccatct gccagcccca gtaagggcct   2340
tcactgtggc tgtatcatgg ccagaagctc acccagctgc cttgtgatct ttccaggtgt   2400
cctgtggcaa gtgtggcaat gggttgggcc acgagttcct gaacgacggc cccaagccgg   2460
ggcagtcccg attctgaata ttcagcagct.cgctgaagtt tgtccctaaa ggtgagcttg   2520
ctttgcacag ctggggccag gcctgttggc ctttgagccc aggctggggg gcccagtgtt   2580
tgtgcttgtc cacttaccat gacaaggtat ggggccacca agtcacgctg cctgggaact   2640
gtccaggatc ccccagaaag gtggctgcag cgcaggggca aaggagctgg tgttccgctt   2700
cctcgcttgg ttgatcatga ctgtcccaaa aaggggcttc agcgtgagaa tgtggcaaat   2760
ggttttcctc agaggcctgg cctttcccag aggctagagt caggggcggg gcaggcagag   2820
cctgaggccc cagtctgtgc ggctgtgtct cccactggct aggactgtgg ccttgcttct   2880
tagccgctca gagcctgcct cctcctctgc agagtggcgg tggtagcagg gctgtgagga   2940
cagctgcgtg tcacgtgcac ctgggcctgg cacacaataa tagcttgatg aatcctcatc   3000
cttttttttt ttttttctga gatggagtct tgctctgtcg tgcaggctgg tgtgcagtgg   3060
cgcgatctca gctcactgca acctctgcct cctggttcaa gcaattctcc tgttttggcc   3120

```
tcccaagtag ctgggattgc aggcacgcat caccacgccc agctaatttt tgtattttta   3180
gtagatacgg ggtttcacca tggtggccag gctggtctta aactcctgac ctcaggtgat   3240
ctgcccacct tggcctctca aagtgctcga attataggca tgagccacca cgcccagccc   3300
acacttggtt aattttaat tttttttttt ttttggtga cagagtcttg ttctgtcacc   3360
caggctggag tgcaatggcc aatctcagct caatgtagcc tctgcttccc aggttcaagt   3420
gattcttctg cctcagcctc ccgagtagct gggattacag gctcccacta ccgcgcctgg   3480
ctaattttg attttttagt agagacgggg tttcaccatg ttagccaggc tggtctggaa   3540
ctcctgacct gaggtgatct gcctgtctca acctcccaaa gtgccgggat tataggcgtg   3600
agctaccgca cccagccaat ttttaaaatt tttatagaga tggggtctc actatgtggc   3660
ccaggctggt cttgaactcc tctgggcctt ggcctcccaa ggtgctggga ttacaggctt   3720
gagccactgc ctcgcctgaa atggggctgt aacagcaca cgcttgtggc catcaccgtg   3780
ctgtggggtt gagcgagcag cctgtcagga tctggtgcgt ggtaaacctg cgatgttttc   3840
gtccttttgt tgttatttgt cctccgtgtg agtggaggga aagagattc tgggttctcc   3900
tgtggatgtc agaacaaaat ggggtacaca gactccctg agtcgggcat ctggtctttt   3960
cagctcccct gtggcctgca ggccagggca gagtgtgaaa gcgcagggaa cggcacctga   4020
agctctgcct tgcagtgact tgctttctgc ccctaccctg gctttccaca gccgccgcgg   4080
ccggctttcc gaccatgctt gctttctgac tcagcagact ttccgccccc tctcctctct   4140
ttcaggcaaa gaaacttctg cctcacaggg tcactaggcg gtcagcccac acccacccca   4200
gacggccacc acactgaggc cacacgttgg ccattccacc ttggagttgg aaccctgggc   4260
gtcgagacag gaaggcaggg cgcagtggtt gaaacatcag gacactccca aggccccggc   4320
tctgaacaag accttttcgt ttcttggaaa agagactcat ttgctgatgg ttcatgcctt   4380
ctgctgggac aggcctgggc tgtgcagcca cactgtcggc tgacttagcc ccctgctcac   4440
tctaggtgcc tccaggaggt gagccctggg tgcagctggt ctctgaatga cgttacaccc   4500
tcaccttctt ttcctggccc tgtctctgga ctctcccctg tgaggcccaa ttccaagaca   4560
gactctcgtc ctcaccgaag cttaggccca catctcccag gctgcttagg agacagaatg   4620
gaaacggagg ccgcccctgc cagccgccct ggccctggtc actgcatgat ccgctctggt   4680
caaacccttc caggccagcc agagtgggga tggtctgtga cctgctggga aggcaggctg   4740
atggggcaca cccttggcct ctcgtccacg aggggagaaa cctaaaccct gtttcacaat   4800
ctgtgcggaa gtagcttgcc tcacttctgc ttaggaaagc ggctgttgct ccataactct   4860
aaccagcaca gggctgaggc ctgcagtgca cacctgcagg gaggcccttc ccaaggtgtg   4920
gtgactgtgc cttactgtac atgctcggag gcctggccat ataggagggt gggtgatgct   4980
gaaatcaccc cccatcttaa gtaattactt tctggagtaa tcaggtggaa atccatagac   5040
aaatgaaaca ttcagatgta                                               5060


<210> 9116
<211> 1662
<212> DNA
<213> Homo sapiens

<400> 9116
agctccaggg gtcagggagg gggactcagg agggcttagc tcagcagtga tgggcacagc     60
atgtgcacag gctcagcaca catggggcct gccccaggcc ctggagggca cggaacaagg    120
ctccacaaga aatgcaccat tttcccaatt tatacccaca gaaatccggg gagcatgtgg    180
gagtggattt taagggtgga tgtttcaccc tgcagaaccc acagctggca tcgccccaaa    240
agcggtggcc aggagtgccc caaagggcac aggatggccc caaagcattg caagatgggg    300
ccagttggga tctgaactaa ggaacgctaa acgccagggt gagcactcca gagcatttat    360
tagggggact tacagaaggc cgcagcgtat ccttgcaaca aaagcgagag agaagaggtg    420
ccctcccttg atatctctgc agcaagggga cacggtgtgg agtggatatg gaagtttaag    480
ggatttggct cagggctggg ccagtttctt tcagtgtttt agcccacaac ctagattttt    540
tttttttttt tttttttgg agacagagtc ttggtctgtc atttaggctg gagtgcagtg    600
gtgagatctc ggctcactgc agcctccgtc tcacgcctgg gttcaagcaa ttcttgtgcc    660
tcagcctctt gagtagctgg gattacaggc gctcgccagt atgcctggct aattttgta    720
tttttagtag agatagggtt tcgccatgtt ggcgaggctg atctcgaaca ctgcacccag    780
cctagaattt tttaatttaa tttttaaaaa attagagata gggccttacc atctcaccca    840
ggctggtctt gaattcctag gctcaaacaa tcctcctgcc tcagtccccc aaagtgctgg    900
gattacaggc gtgagccaca tgcctggctg cactttgtga ttcttggtca ggacacagaa    960
agaaagcagg ggaggccagg tgtggtggct catgcccgtc atcccagcac tttgggaggc   1020
tgagatgggt ggatcacctg aggtcgggag ttcaagacca gcctggccaa cacggtgaaa   1080
ccctatctct actaaaaata caaaaattag ctgggtgtgg tggcgcatgc ctgtaatccc   1140
agctacttgg gaggctgagg gatgagaatc acttgaatct gggaggtgga ggttgcagtg   1200
```

6690

```
agctgagatt acaccactgc actccagcct gggcgacaga gcgagactct gtctcaaaaa      1260
aaaaaaaaaa agaaaagaaa agaaaaaaaa agcaggggga accaggagac cctacagtag      1320
ggataatggg gaaaggaaca aaaaattggg tcaggttgcg tttattgata cgggcccact      1380
aagcagaggt tctggacctc gtgctaccac tgctggggtt tgactggttg gttggtgagc      1440
tacaacacag accaaaaagt gacctacaca aagtgaggct gaaatgccag gcctgcctct      1500
ctgcgtggca gaggatggga ctcaaaggct tggggaggtt ggagtgtcag agtggattta      1560
tcttttgaga cctactcacc cacccctgga gaggagagag gacacacctc ttaccacccc      1620
cacgagaaat aaatttgtga ggggaacact cctccttcat ga                        1662


<210> 9117
<211> 547
<212> DNA
<213> Homo sapiens

<400> 9117
agatcagatg agccagttta tcaatctggt tggtgccagc agatccatca agttgcaggg       60
tcggcaaaat atctcaagca ctgatcttag gggcagctta gggagggtca gaatcttgta      120
gcctccagat gcacgactcc taaaccataa ttcccaatat tgtggctaat gttagtccta      180
aaaatgcaat ctagtcccca ggcaaggagg tggtctgctt tgggaaaggg ctgttactgt      240
ctttgtttta aactataaac tggctgggcg cggtggctca cgcctgtaat cccagcactt      300
tgggaggcca agatgggcgg atcacctgag gtcgggagtt caagaccagc ctggccaaca      360
tcgagaaacc tcgtctctat taaaaataca aaattagctg ggcgtggtgg cgcatgattg      420
taatcccatc tactcgggag gctgaggcag gagaattgct tgaaccagcg agttggaggt      480
tgcagtgagc tgagatcgcg ctactgcact ccagcctgga aacagagtaa gactccgtct      540
caaaaga                                                               547


<210> 9118
<211> 1662
<212> DNA
<213> Homo sapiens

<400> 9118
agctccaggg gtcagggagg gggactcaga agggcttagc tcagcagtga tgggcacagc       60
atgtgcacag gctcagcaca catggggcct gccccaggcc ctggagggca cggaacaagg      120
ctccacaaga aatgcaccat tttcccaatt tatacccaca gaaatccggg gagcatgtgg      180
gagtggattt taagggtgga tgtttcaccc tgcagaaccc acagctggca tcgccccaaa      240
agcggtggcc aggagtgccc caaagggcac aggatggccc caaagcattg caagatgggg      300
ccagttggga tctgaactaa ggaacgctaa acgccagggt gagcactcca gagcatttat      360
taggggggact tacagaaggc cgcagcgtat ccttgcaaca aaagcgagag agaagaggtg      420
ccctcccttg atatctctgc agcaagggga cacggtgtgg agtggatatg gaagtttaag      480
ggatttggct cagggctggg ccagtttctt tcagtgtttt agcccacaac ctagattttt      540
ttttttttt ttttttttgg agacagagtc ttggtctgtc atttaggctg gagtgcagtg      600
gtgagatctc ggctcactgc agcctccgtc tcacgcctgg gttcaagcaa ttcttgtgcc      660
tcagcctctt gagtagctgg gattacaggc gctcgccagt atgcctggct aattttttgta      720
tttttagtag agataggggtt tcgccatgtt ggcgaggctg atctcgaaca ctgcacccag      780
cctagaattt tttaattttaa tttttaaaaa attagagata gggccttacc atctcaccca      840
ggctggtctt gaattcctag gctcaaacaa tcctcctgcc tcagtccccc aaagtgctgg      900
gattacaggc gtgagccaca tgcctggctg cactttgtga ttcttggtca ggacacagaa      960
agaaagcagg ggaggccagg tgtggtggct catgcccgtc atcccagcac tttgggaggc     1020
tgagatgggt ggatcacctg aggtcgggag ttcaagacca gcctggccaa cacggtgaaa     1080
ccctatctct actaaaaata caaaaattag ctgggtgtgg tggcgcatgc ctgtaatccc     1140
agctacttgg gaggctgagg atgagaatc acttgaatct gggaggtgga ggttgcagtg     1200
agctgagatt acaccactgc actccagcct gggcgacaga gcgagactct gtctcaaaaa     1260
aaaaaaaaaa agaaaagaaa agaaaaaaaa agcaggggga accaggagac cctacagtag     1320
ggataatggg gaaaggaaca aaaaattggg tcaggttgcg tttattgata cgggcccact     1380
aagcagaggt tctggacctc gtgctaccac tgctggggtt tgactggttg gttggtgagc     1440
tacaacacag accaaaaagt gacctacaca aagtgaggct gaaatgccag gcctgcctct     1500
ctgcgtggca gaggatggga ctcaaaggct tggggaggtt ggagtgtcag agtggattta     1560
tcttttgaga cctactcacc cacccctgga gaggagagag gacacacctc ttaccacccc     1620
```

6691

```
cacgagaaat aaatttgtga ggggaacact cctccttcat ga                        1662


<210> 9119
<211> 547
<212> DNA
<213> Homo sapiens

<400> 9119
agatcagatg agccagttta tcaatctggt tggtgccagc agatccatca agttgcaggg      60
tcggcaaaat atctcaagca ctgatcttag gggcagctta gggagggtca gaatcttgta     120
gcctccagat gcacgactcc taaaccataa ttcccaatat tgtggctaat gttagtccta     180
aaaatgcaat ctagtcccca ggcaaggagg tggtctgctt tgggaaaggg ctgttactgt     240
ctttgtttta aactataaac tggctgggcg cggtggctca cgcctgtaat cccagcactt     300
tgggaggcca agatgggcgg atcacctgag gtcgggagtt caagaccagc ctggccaaca     360
tcgagaaacc tcgtctctat taaaaataca aaattagctg ggcgtggtgg cgcatgattg     420
taatcccatc tactcgggag gctgaggcag gagaattgct tgaaccagcg agttggaggt     480
tgcagtgagc tgagatcgcg ctactgcact ccagcctgga aacagagtaa gactccgtct     540
cgaaaga                                                               547


<210> 9120
<211> 2036
<212> DNA
<213> Homo sapiens

<400> 9120
ggattgtaac acatgacaaa gtttgagaac tactgacagg aagagtcctg ctgctgagtt      60
ctaggcccag ttctgtcact ggctcactaa atgacttcag gcatgtccct ctcctatttt     120
gaacttcagt tttctcttct gtgaaatgaa agccttggac taggcagcgt ctaaaggctc     180
tgtcactccg taattgtgtg actttggtaa ctttgtttga cttctccttg cttaagtttt     240
ctcatatggg tatggtaagg aaaataccta cctcacagga ttttctaaca attttgtgat     300
tattaagtat gatgactgat gactaatata tgacagccag ctcttacaca gtgctttcta     360
tatcctggac tgttgtaagt gcttttaatc cccgcaacaa tcccatctcc attttacaaa     420
tgaaaaatag aggtcacacg gctaatacgt gtcagagttt ggattaaaac ccagaaaaat     480
ctgtccccag agacaatgat tttaactagc atgccctttt gctcaataaa tgttaattcc     540
ctcacccttt ccacacacac acagtctagc tgaccattca tagacaataa tcccactttc     600
acagtccatc caacaagatc ttaaaagaac catgagaatc tctaggtttc ttttgcaaat     660
agttttcaag catttaaaaa aaaaggtgg ggggcgggga gggagtggcc aagatggctg     720
actagaagca gctaggatga gtggttctca tggaggggaa ggaaggggc gagtaaatac     780
agcgccttca actgaaacat ccaggtaccc acattgggtc taatcaagga aacaactcga     840
tccacagaga atgaagaaaa gcaaggcagg atgacagccc acccaggagc aacatggaga     900
cagaggaacc tcctccaccc agggaagtcg taagtgaatg tgcgatcctg ggaaaccacg     960
ctcctcccat ggatccttgc aacccttggg tcaggagatc ccctggtgaa cccactccac    1020
cagggccttc agtctgacac acagagatac atggagtctc agcagagtag ccgcttgagc    1080
acgtgcagag acccagcagc tttacatact ccggccctgg gtttcccagc aaaagtaact    1140
gcaactcctg caaagcggga gattagaccc ctgtacatac ccctaggaaa gaggctgaat    1200
ccaggggccc aagcggcacg atctgcgggc cccacttcca ctgcacctca caggataaga    1260
cccactggtt tggaattcca gccagccacc agcagcagtg ttgcacctac ctgggacgga    1320
ggtcccaggg ggaagggcag gctgctctct gggacagagc tcccagaagt ggtacccag    1380
aacagcacag cacagctgct cttcagaagc atggccagac tgcttcttta agcaggtgcc    1440
caatctgttc ctcctcactg ggtgggactt ttcaaccaag gcctccagca acccctactg    1500
gtgttctctg gctgacagag atttgaattc tccctgggac agagttcccg gagggaggga    1560
ggggccacca tctttgctgt ttgggcgact tagctgttcc ggcctccagg ctttggagag    1620
cccacaccaa ccaggggtgg aagcagtgcc ccagcacagc acagctgatc tgtgaaagca    1680
tggacagact gcttctttaa gcagttccct gatcccgttc ctcctgactg ggtgagacct    1740
cccaaccagg gtctccagcc ttgtcctgca ggcgcatttg ggctggcaac aggtctgtac    1800
ctcgctgggc cggagctccc agaggaagag gcaggatgac atctttgctg tttcacagcc    1860
ttcactggtg atagctccag gtactggaaa atccaaggag actaggaaat ggagaagaag    1920
cccagcaaag tacagcagcc ctacagaaac atggccagac tgtagaaaga aaaaaaaat    1980
ccaaaggtca gcaacctcaa agattgaagg tagataagcc cacaaagtga gaaaga        2036
```

<210> 9121
<211> 2632
<212> DNA
<213> Homo sapiens

<400> 9121
```
aggaagagtc ctgctgctga gttctaggcc cagttctgtc actggctcac taaatgactt    60
caggcatgtc cctctcctat tttgaacttc agttttctct tctgtgaaat gaaagccttg   120
gactaggcag cgtctaaagg ctctgtcact ccgtaattgt gtgactttgg taactttgtt   180
tgacttctcc ttgcttaagt tttctcatat gggtatggta aggaaaatac ctacctcaca   240
ggattttcta acaattttgt gattattaag tatgatgact gatgactaat atatgacagc   300
cagctcttac acagtgcttt ctatatcctg gactgttgta agtgctttta atccccgcaa   360
caatcccatc tccattttac aaatgaaaaa tagaggtcac acggctaata cgtgtcagag   420
tttggattaa aacccagaaa aatctgtccc cagagacaat gattttaact agcatgccct   480
tttgctcaat aaatgttaat tccctcaccc tttccacaca cacacagtct agctgaccat   540
tcatagacaa taatcccact ttcacagtcc atccaacaag atcttaaaag aaccatgaga   600
atctctaggt ttcttttgca aatagttttc aagcatttaa aaaaaaaagg tggggggcgg   660
ggagggagtg gccaagatgg ctgactagaa gcagctaggg tgagtggttc tcatggaggg   720
gaaggaaagg ggcgagtaaa tacagcgcct tcaactgaaa catccaggta cccacattgg   780
gtctaatcaa ggaaacaact cgatccacag agaatgaaga aaagcaaggc aggatgacag   840
cccacccagg agcaacatgg agacagagga acctcctcca cccagggaag tcgtaagtga   900
atgtgcgatc ctgggaaacc acgctcctcc catggatcct tgcaaccctt gggtcaggag   960
atccctggt gaacccactc caccagggcc ttcagtctga cacacagaga tacatggagt  1020
ctcagcagag tagccgcttg agcacgtgca gagacccagc agctttacat actccggccc  1080
tgggtttccc agcaaaagta actgcaactc ctgcaaagcg ggagattaga cccctgtaca  1140
taccccctagg aaagaggctg aatccagggg gccaagcggc acgatctgcg ggccccactt  1200
ccactgcacc tcacaggata agacccactg gtttggaatt ccagccagcc accagcagca  1260
gtgttgcacc tacctgggac agaggtccca gggggaaggg caggctgctc tctgggacag  1320
agctcccaga agtggtaccc cagaacagca cagcacagct gctcttcaga agcatggcca  1380
gactgcttct ttaagcaggt gcccaatctg ttcctcctca ctgggtggga cttttcaacc  1440
aaggcctcca gcaacccta ctggtgttct ctggctgaca gagatttgaa ttctccctgg  1500
gacagagctc ccggagggag ggaggggcca ccatctttgc tgtttgggcg acttagctgt  1560
tccggcctcc aggctttgga gagcccacac caaccagggg tggaagcagt gccccagcac  1620
agcacagctg atctgtgaaa gcatggacag actgcttctt taagcagttc cctgatcccg  1680
ttcctcctga ctgggtgaga cctcccaacc agggtctcca gccttgtcct gcaggcgcat  1740
ttgggctggc aacaggtctg tacctcgctg ggccggagct cccagaggaa gaggcaggct  1800
gacatctttg ctgtttcaca gccttcactg gtgatagctc caggtactgg aaaatccaag  1860
gagactagga actggagaag aagcccagca aagtacagca gccctacaga aacatggcca  1920
gactgttaaa agaaaaaaaa aatccaaagg tcagcaacct caaagactga aggtagataa  1980
gcccacaaag atgagaaaga atcagtgcaa gaatgctgaa aactcaagaa gccagagtgc  2040
cctctttcct ccaaatgact gcatcacctc tctagcaagg gttcggaatt gggctgaggc  2100
tgagatggct gaaatgacat aagtagaatt cagaatatgg atagaaatga acttcactga  2160
gttaaaagag tacattgtaa cccaatgcaa gcaagctaaa aatcatgata aaacattgca  2220
ggagctgaca gacaaaatag cccatgtaga gaagaatgta accaacctga cggaactgaa  2280
aaaacacact acaagaattt cataatgcaa tcacaagtac taatagcaga atagacaaag  2340
cggaggaaag aatttcagag cttgaagact ggctttctga ataagactg gcagacaaga  2400
atagagaaaa aagaatgaaa agcaatgaac aaaacctccg agaaatatgg gatcacgtaa  2460
agagagcgaa tctaagactg attggtgtcc ctgaaagaga tggggaaaac ggaaccaatt  2520
tggaaaacgc atttcaggat atcatctatg agaaattccc taacctagct agagaggcca  2580
acattcaaat tcaggaaatc cagagaactc caggaagata ctccacgaaa gg           2632
```

<210> 9122
<211> 2669
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

6693

<222> (1309)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1310)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1480)
<223> n equals a,t,g, or c

<400> 9122
```
ggattgtaac acatgacaaa gtttgagaac tactgacagg aagagtcctg ctgctgagtt    60
ctaggcccag ttctgtcact ggctcactaa atgacttcag gcatgtccct ctcctatttt   120
gaacttcagt tttctcttct gtgaaatgaa agccttggac taggcagcgt ctaaaggctc   180
tgtcactccg taattgtgtg actttggtaa cttttgtttga cttctccttg cttaagtttt   240
ctcatatggg tatggtaagg aaaatacctg cctcacagga ttttctaaca attttgtgat   300
tattaagtat gatgactgat gactaatata tgacagccag ctcttacaca gtgctttcta   360
tatcctggac tgttgtaagt gcttttaatc cccgcaacaa tcccatctcc attttacaaa   420
tgaaaaatag aggtcacacg gctaatacgt gtcagagttt ggattaaaac ccagaaaaat   480
ctgtccccag agacaatgat tttaactagc atgccctttt gctcaataaa tgttaattcc   540
ctcacccttt ccacacacac acagtctagc tgaccattca tagacaataa tcccactttc   600
acagtccatc caacaagatc ttaaaagaac catgagaatc tctaggtttc ttttgcaaat   660
agtttttcaag catttaaaaa aaaaaggtgg ggggcgggga gggagtggcc aagatggctg   720
actagaagca gctagggtga gtggttctca tggaggggaa ggaaaggggc gagtaaatac   780
agcgccttca actgaaacat ccaggtaccc acattgggtc taatcaagga aacaactcga   840
tccacagaga atgaagaaaa gcaaggcagg atgacagccc acccaggagc aacatggaga   900
cagaggaacc tcctccaccc agggaagtcg taagtgaatg tgcgatcctg ggaaaccacg   960
ctcctcccat ggatccttgc aacccttggg tcaggagatc ccctggtgaa cccactccac  1020
cagggccttc agtctgacac acagagatac atggagtctc agcagagtag ccgcttgagc  1080
acgtgcagag acccagcagc tttacatact ccggccctgg gtttcccagc aaaagtaact  1140
gcaactcctg caaagcggga gattagaccc ctgtacatac ccctaggaaa gaggctgaat  1200
ccaggggggcc aagcggcacg atctgcgggc cccacttcca ctgcacctca caggataaga  1260
cccactggtt tggaattcca gccagccacc agcagcagtg ttgcacctnn acggacagag  1320
gtccagggg aagggcaggc tgctctctgg gacagagctc ccagaagtgg tacccccagaa  1380
cagcacgcac agctgctctt cagaagcatg gccagactgc ttctttaagc aggtgcccaa  1440
tctgttcctc ctcactgggt gggactttc aaccaaggcn ctccagcaac ccctactggt  1500
gttctctggc tgacagagat ttgaattctc cctgggacag agctcccgga gggagggagg  1560
ggccaccatc tttgctgttt gggcgactta gctgttccgg cctccaggct ttggagagcc  1620
cacaccaacc aggggtggaa cgcagtgccc cagcaacgcg acagctgatc tgtgaaagca  1680
tggacagact gcttctttaa gcagttccct gatcccgttc ctcctgactg ggtgagacct  1740
cccaaccagg gtctccagcc ttgtcctgca ggcgcatttg ggctggcaac aggtctgtac  1800
ctcgctgggc cggagctccc agaggaagag gcaggctgac atctttgctg tttcacagcc  1860
ttcactggtg atagctccag gtactggaaa atccaaggag actaggaact ggagaagaag  1920
cccagcaaag tacagcagcc ctacagaaac atggccagac tgttaaaaga aaaaaaaaat  1980
ccaaaggtca gcaacctcaa agactgaagg tagataagcc cacaaagatg agaaagaatc  2040
agtgcaagaa tgctgaaaac tcaagaagcc agagtgccct ctttcctcca aatgactgca  2100
tcacctctct agcaagggtt cggaattggg ctgaggctga gatggctgaa atgacataag  2160
tagaattcag aatatggata gaaatgaact tcactgagtt aaaagagtac attgtaaccc  2220
aatgcaagca agctaaaaat catgataaaa cattgcagga gctgacagac aaaatagccc  2280
atgtagagaa gaatgtaacc aacctgacgg aactgaaaaa acacactaca agaatttcat  2340
aatgcaatca caagtactaa tagcagaata gacaaagcgg aggaaagaat ttcagagctt  2400
gaagactggc tttctgaaat aagactggca gacaagaata gagaaaaaag aatgaaaagc  2460
aatgaacaaa acctccgaga aatatgggat cacgtaaaga gagcgaatct aagactgatt  2520
ggtgtccctg aaagagatgg ggaaacggaa ccaattgg aaaacgcatt tcaggatatc  2580
atctatgaga aattccctaa cctagctaga gaggccaaca ttcaaattca ggaaatccag  2640
agaactccag gaagatactc cacgaaagg                                    2669
```

<210> 9123
<211> 300
<212> DNA
<213> Homo sapiens

<400> 9123
tctagagtga ccaaccatcc tcttgtgccc agaactacag gactttccat tttaaaacta   60
ggagagtccc acacaaacca ggactgttgg tcagtcaccg taccttcttg ctgctagata   120
tgtaattttc tttggttttc atcaccggtt cccatttctt tgaaagtgtt tgtaggtcac   180
acactgtgta gtccatgatg aaaagaacaa aagatgtatg aattatggtg tgttgtggtg   240
gttcccaaag tagggtcccc agaccaccag cagtggcatc atttgagaac tccttagaaa   300

<210> 9124
<211> 2666
<212> DNA
<213> Homo sapiens

<400> 9124
aaggaagcac taaatgtaga aaggaaagat ggttaccagc cactccaaaa acacactgaa   60
gtactcagac cagtgacact acagagcaaa catgtaagca agtctgcaaa ataaccagct   120
agcatcatga tgaaaggatc aaatccaaac ataccaatac taaccttaaa ttgtaaatgg   180
gctaaatgcc ccagttaaaa gacacagagt agcaagctgg ataaggaact aagatccaat   240
ggtatgctgt cttcaagaga accatctcac atgcaatgac acacataggc tcaaaataaa   300
aagatggatg aaaatctacc aagcaaacgg aaaacataaa aaagcagcag ttgcaatcct   360
agtttctgac aaaacagact ttaaatcaac aaagatcaaa aaacacaaag aagggcatta   420
cataatggta aatggttcaa ttcaacaaga aaatctaact atcctaaata catatggacc   480
caacacagga gcacccagat ttataaagca agttcttaga ggccttcaca gagacttaga   540
ctgccaggca atgatagtgg gagacttttt aacaccccac tgacaatatt agacagatca   600
ttgagacaga cagttaacaa agatattcag gacctgaact cagcactgga tcaaatggac   660
ctggtggata tctacagaac tctccacccc aaaacaacag aatatacatt cttctgatca   720
ccgcaaggca cttactctaa aatcgaccac ataatcagaa gtaaaacact cctcgacaaa   780
tgcaaaagaa ctgaaatcat gacaaacagt ctcttgggcc acagaagaat caaatttgaa   840
atcaagatta agaaattcac tcaaaaccat gcaattacat ggaaattgaa taacctgctc   900
ctgaatgact tttgggtaaa caatgaaatt taggcagaaa tcaagaagtt ctatgaaact   960
aatgagaaca aagatacaaa gtaccagaat ctctgggata cagcaaaggc agtgttaaga   1020
aggaaattta tagcactaaa tgcccacatc aaaaagttag aaagatctca agttaataac   1080
ctaacatcac tactaaaaga actagagaag cgagagcaaa caaatcccaa aactagcaga   1140
agacaagaaa taacaaaaat cagagctgaa ctgaaggaga cagagacatg aaaaacccctt   1200
caaaaaatga aagaatccag aagctgtttt ttttttcttt gaaaaaaagt aataaaatag   1260
accgctagct agacgaataa agaaggaaag agagaagatt tgaataaaca caatcagaaa   1320
tgataagggg aatatttatc actgacccca cagaaataca aacaaccacc agagaatatt   1380
gtgaacacct ctgggcacat aaactaggaa gtctagaaga aatggacaaa ttcctggaca   1440
cacacacctc cccaaggctg aaccaggaag aaactgaatc cctgaacaga ccagtaatga   1500
gtttggaaat tgaggcagta ataaatagcc taccaaccaa aaaaatccca ggaccagatg   1560
gattcacagc tgaattctac cagatgtaca agaggaact ggtagcattc ctactgatac   1620
tatttcaaaa aattgagaag gagggactcc tccctaactc attctatgag gccagcatca   1680
tcctgaaacc aaaacctggc agagatacaa caacaaaaga aaacttcagg ccagtatcct   1740
tcatgaacat caatgcaaaa atcctcaaca aaatgctggc aaactgaatc cagcagcaca   1800
tcaaaaagct tatccaccac gatcaagttg gcttcctccc tgggatgcaa ggttggttca   1860
acatatgcag atcaataaat gtgactcatc acataaacag aactaaagac aaaaaccaca   1920
tgattatctc aatagatgca gaaaaggctt ttgataaaat tcaacatcgc ttcatgttaa   1980
aaactctcaa taaactaggt attgaaggac catgcctcaa ataataaga gccatctgtg   2040
acaaacgcac agccaacatc atactgaatg gacaacagct ggaagcattc cccttgaaaa   2100
ccggcacaag acaaggatgc cctctctcac cactcctatt caacatagta ttggaagttc   2160
tggccagggc aatcaggcaa gtgaaagaaa taaagggcat ccaaattgga agggaggaag   2220
tcaacctatc cctgcttgca gatgacatga tcctatatct agaaaacccc gttgtctcag   2280
cccaaaggcc tcttaagctg ataaacaact tcagcaaagt ctcaggtac agaatcaatg   2340
tgcaaaaatc actagcattc ctatacacca gcaacagtaa agccgacagc caaatcagca   2400
atgaactccc attcacaatt gctacaaaaa gaataaaata cctaggaata cagctaacta   2460
gggaggtgaa agatctctac aaggagaact acaaaccact gctcaaagaa atcggagatg   2520

6695

```
acacacaaaa aaatggaaaa acattccaag ctcatggata ggaagaatca gtattaaaat    2580
gggcatactg cccaaagcaa tttatagatt caatgctatt cccattaaac taccattgac    2640
agtcttcaca gaacgagaaa aaaaaa                                          2666


<210> 9125
<211> 300
<212> DNA
<213> Homo sapiens

<400> 9125
tctagagtga ccaaccatcc tcttgtgccc agaactacag gactttccat tttaaaagta      60
ggagagtccc acacaaacca ggactgttgg tcagtcaccg taccttcttg ctgctagata     120
tgtaattttc tttggttttc atcaccggtt cccatttctt tgaaagtgtt tgtaggtcac     180
acactgtgta gtccatgatg aaaagaacaa aagatgtatg aattatggtg tgttgtggtg     240
gttcccaaag tagggtcccc agaccaccag cagtggcatc atttgagaac tccttagaaa     300


<210> 9126
<211> 4591
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (740)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3998)
<223> n equals a,t,g, or c

<400> 9126
aaggaagcac taaatgtaga aaggaaagat ggttaccagc cactccaaaa acacactgaa      60
gtactcagac cagtgacact acagagcaaa catgtaagca agtctgcaaa ataaccagct     120
agcatcatga tgaaaggatc aaatccaaac ataccaatac taaccttaaa ttgtaaatgg     180
gctaaatgcc ccagttaaaa gacacagagt agcaagctgg ataaggaact aagatccaat     240
ggtatgctgt cttcaagaga accatctcac atgcaatgac acacataggc tcaaaataaa     300
aagatggatg aaaatctacc aagcaaacgg aaaacataaa aaagcagcag ttgcaatcct     360
agtttctgac aaaacagact ttaaatcaac aaagatcaaa aaacacaaag aagggcatta     420
cataatggta aatggttcaa ttcaacaaga aaatctaact atcctaaata catatggacc     480
caacacagga gcacccagat ttataaagca agttcttaga ggccttcaca gagacttaga     540
ctgccaggca atgatagtgg gagacttttt aacaccccac tgacaatatt agacagatca     600
ttgagacaga cagttaacaa agatattcag gacctgaact cagcactgga tcaaatggac     660
ctggtggata tctacagaac tctccacccc aaaacaacag aatatacatt cttctgatca     720
ccgcaaggca cttactctan catcgaccac ataatcagaa gtaaaacact cctcgacaga     780
tgcaaagaa ctgaaatcat gacaaacagt ctcttgggcc acagaagaat caaatttgaa      840
atcaagatta agaaattcac tcaaaaccat gcaattacat ggaaattgaa taacctgctc     900
ctgaatgact tttgggtaaa caatgaaatt taggcagaaa tcaagaagtt ctatgaaact     960
aatgagaaca aagatacaaa gtaccagaat ctctgggata cagcaaaggc agtgttaaga    1020
aggaaattta tagcactaaa tgcccacatc aaaaagttag aaagatctca agttaataac    1080
ctaacatcac tactaaaaga actagagaag cgagagcaaa caaatcccaa aactagcaga    1140
agacaagaaa taacaaaaat cagagctgaa ctgaaggaga cagagacatg aaaaaccctt    1200
caaaaaatga aagaatccag aagctgtttt ttttttcttt gaaaaaagt aataaaatag      1260
accgctagct agacgaataa agaaggaaag agagaagatt tgaataaaca caatcagaaa    1320
tgataagggg aatatttatc actgaccca cagaaataca aacaaccacc agagaatatt      1380
gtgaacacct ctgggcacat aaactaggaa gtctagaaga aatggacaaa ttcctggaca    1440
cacacacctc cccaaggctg aaccaggaag aaactgaatc cctgaacaga ccagtaatga    1500
gtttggaaat tgaggcagta ataaatagcc taccaaccaa aaaaatccca ggaccagatg    1560
gattcacagc tgaattctac cagatgtaca aagaggaact ggtagcattc ctactgatac    1620
```

```
tatttcaaaa aattgagaag gagggactcc tccctaactc attctatgag gccagcatca    1680
tcctgaaacc aaaacctggc agagatacaa caacaaaaga aaacttcagg ccagtatcct    1740
tcatgaacat caatgcaaaa atcctcaaca aaatgctggc aaactgaatc cagcagcaca    1800
tcaaaaagct tatccaccac gatcaagttg gcttcctccc tgggatgcaa ggttggttca    1860
acatatgcag atcaataaat gtgactcatc acataaacag aactaaagac aaaaaccaca    1920
tgattatctc aatagatgca gaaaaggctt ttgataaaat tcaacatcgc ttcatgttaa    1980
aaactctcaa taaactaggt attgaaggac catgcctcaa aataataaga gccatctgtg    2040
acaaacgcac agccaacatc atactgaatg gacaacagct ggaagcattc cccttgaaaa    2100
ccggcacaag acaaggatgc cctctctcac cactcctatt caacatagta ttggaagttc    2160
tggccagggc aatcaggcaa gtgaaagaaa taaagggcat ccaaattgga agggaggaag    2220
tcaacctatc cctgcttgca gatgacatga tcctatatct agaaaacccc gttgtctcag    2280
cccaaaggcc tcttaagctg ataaacaact tcagcaaagt ctcagggtac agaatcaatg    2340
tgcaaaaatc actagcattc ctatacacca gcaacagtaa agccgacagc caaatcagca    2400
atgaactccc attcacaatt gctacaaaaa gaataaaata cctaggaata cagctaacta    2460
gggaggtgaa agatctctac aaggagaact acaaaccact gctcaaagaa atcggagatg    2520
acacacaaaa aaatggaaaa acattccaag ctcatggata ggaagaatca gtattaaaat    2580
gggcatactg cccaaagcaa tttatagatt caatgctatt cccattaaac taccattgac    2640
agtcttcaca gaacgagaaa aaaaaacta ttttaaaatt catatggaac caaaaaacaa    2700
aaaaagcccg aataccgaag gcaatcctaa gcaaaaagga caaagctgga ggcatcatgc    2760
tacctgactt caaactatgc tacaaggcta cagtaaccca aacagcatgg tgctggtaca    2820
agaacagaca catagacaaa tggaacagaa cagagaaccg agaaatgaga ccacacacct    2880
acaactaact gatcttcgac aaacctgaca aaaacaagca atggggaaag gattcccggt    2940
tcaataaatg gtgctgggat aactggctag ccatgtgcag aagatgaaaa ccggctccct    3000
tgcttacact atatacaaag attgactcaa gatggattaa agactgacat gtaaaacccc    3060
caactatgaa aactctgaaa gacaacttag gcaatgccat tcagggcata ggcatgggca    3120
aagatttcat gatgaagacg ccaaaagcaa ttgcaacaaa agcaaaaaat tgacaaatgg    3180
ggtctaataa aattaaagag ctgtgcacag tgaaagaaac tatcaacaga gtaaacagac    3240
aacctacaga atgggagaaa atatttgcaa actatgcatc tgacaaaggt ctaatatcca    3300
gcatctataa agaacttaaa caaatttaca ggaaacaaa caatcccata aaaaagtggg    3360
aaaaggacat gaacagacac ttttcaagag gagacataca tgcagccaac attcatatga    3420
aaaaaaaagg tcaacatcac tgatcattag agaaatgcaa atcaaaacca caatgagatc    3480
ccaactaata ttagccaaaa tggccattat taaaaagtca aaaataaca gatgctggcg    3540
aggctgtgga gaaaaggaa tgcttataca ctgtctgtgg gattgtaaac aagttcagcc    3600
actgtggaag acagtgtggt gattcctcaa agacctaaag acagaaatac cattcaaccc    3660
agcaatccca ttactgggtc tacacccaaa ggactaaaaa tcattctgtt acaaagacac    3720
atgcatgtgt atgctcattg cagcactact cacaatagca aagacatgga atcagcctaa    3780
atccccaaca gtgacagact ggagaaagat aatgtggtac atatacacca tggaatacta    3840
tgcagccgtg aaaagaatg agataatgtc cttcgcaggg acatggatgg agctggaggc    3900
ccttatcctt agcagaccaa cacagaaaga gaaaccaaa tactgcatgt tctcacttat    3960
aagtgagagt taaatgatga gaacatatga cacatggngg gaacaacaca cactggggcc    4020
ttttggagga tagagggtgt gaggagggag aggatcaaga aaaacaccta atgggtacta    4080
ggcttaaccc ctgggtgatg aattaatcta tgcaacaaat ccctatgac acaggtttcc    4140
ctatgtaaca acccggcctt tgtcccctg aatttaaagt tttaaaaaaa aaaaaaagg    4200
gagttggtgg ctaataacct ctaaataagg cttttcaaac ttaaaagcaa aatctagccg    4260
ggtgccgtgg ctcacgcctg taatcccagc acttttggag gccaaggcag gaggatcgct    4320
tgaggtcagg agtttgaacc cagcctgagc agcaaagcaa gccccgttt ctacaaaaaa    4380
atagaattaa aagaaaagtt agttgggtgg gagtcatgag tgcctgcagt cccagctact    4440
cgggaagctg aggtgggagg atctcttgag cccagcagtt caaggctact gtgagctatg    4500
atcaccccac tgcactccag cctgggtaac agagcaagac catgtctcaa aaaaaaaaaa    4560
aaaaaaaaaa ttcatcattt ctaattttgc c                                  4591
```

<210> 9127
<211> 1551
<212> DNA
<213> Homo sapiens

<400> 9127
```
ctccattaag aattgattac taatagcaga agattttaaa ctatctctgt tggtagatga      60
agtgattctt gcatagatag agagagccat ttgtcaccac agctggctaa gtcccctcc     120
ttccttcact tagtctgtat tagtttgcta gagctgccat aacaaaatat cagagtctga     180
```

6698

```
cgtagacatt tctaaaaaga acacatacaa atggctgaca gatatatgaa aatatgctta    1200
acatcactaa ttatcaggaa aatgcaaatc aaaaccacag tgagatacta cctcacccca    1260
gtcagaatgg ctgttctcaa aaagacaaag gataacaaat gttgggaagg atgtggagaa    1320
aggggaactc ttatgcactt ttggtgagaa tgtaaattag tacaactatt atgggaaaca    1380
gtatggaggt tctcccgcct cccccagagg caggttctct ctctgttgcc caggctggag    1440
tgcagtggtg taatcatagc tcgcttggcc tcaaacttat gagctcaagt catcctcctg    1500
cctcagcctt ctgagtagct gggactatag gtgtgtgcca cgtcatctag ttagttctta    1560
attttttgta gagacagtgt cttgctatgt ttcacaagct ggtcttgaac ttctggcctc    1620
aagcaatcct cctccattgg cctcccaaag cactgggctt tataagcatg agccacccta    1680
cccagctgga ggttcttcac aaaaaaagat tggctatata tccaaagaaa ataaataata    1740
cattctttca tagcaaaaga gaggatcagc atatattaaa gagtgcttat tttaccactg    1800
aacaagttgt aaaagtagac gttcttaagc tcatgagcct gtggtaaata ctaggtagtc    1860
actcaaaatg tgtagatttc aagcatactt tggactttgg aagtagacac atgagattgt    1920
agcacggaat cctaaaatcc taggccaaag aagacttta gaaatcatag ttcatactgt    1980
ttctttatg caggatttag ctaatccatc ttagaaaaaa aaagcaagac tattttaat    2040
atccagaaat acatattata gtcattggcg actggccttg aggggcata acaaaacatg    2100
gttgtatgtc agtgatactg caattgatga aatgttgcta tttagaaaca gtaaaaggaa    2160
gcccccagaa gttaaaaata cctgttggac actaaaaaaa                          2200


<210>  9130
<211>  2200
<212>  DNA
<213>  Homo sapiens

<400>  9130
ttttttttt ttgttgactg ggctcaagtg atgctccccc ctcaccctcc tgagtagctg       60
ggagtagctg ggactacagg tgtgtgtcac cacacctggc taagttttt tgtgtgtgtt      120
ttttgagtag agatggggtt ttgccatgtt gcctgaactg gtcacactcc taggctcgag     180
cagtcctcct gccttggcct cccaaagtgc tgggattatg tgtgtgagcc accacaccta     240
gcctacattc ttttaaatt ttttgttttt agttgaccta taatacttgt agaaagacaa      300
agaatacagt gtgatgtttc agtgcatata tgcattgtat aaggatcaaa tgagggtaat     360
tatatccatc actaagcatt tatcatttat ttgttgtggt aatattcaaa atcttctctt     420
ctagctgtct tgaaatgtct atcacattgt tatttgctgt actcacctta ctgtgtaatg     480
gaacaccaga acttattctt cctgtctgat tgtaacttaa tacccattga aacaacttct     540
catggtcccc cccttccccc atactcccca gccataggta accactgttc tattctctgc     600
ttctgtgaaa tcaacttta aaattcaagg gtgaaattac acagtgtttg cctttctgtg      660
ccttgctatt tcacttaaca taatggcctt taggttcatc catattacca caaacgacgg     720
aagaatattc tgtttataat gttccatttt gtgtgtgtgt atacacggac acacggcatt     780
ttctttgttc attcatctgt agatgggtgt ttaggttgat tcatgtcttg actattgtga     840
atggcactgc agtaaacatg ggagtgcaat tatctcttca atatactgat ttcatttccc     900
tttggatata cacccaaaag catagggaac aaaagcaaaa acagacaaat gggattacat     960
caaactacaa agcttctgca cagcaaagga aacaaacaat atagatcgaa gagacaacct    1020
gaagaatagg agaaagtact tgtaaacttt atgcatctga caaagagtta atatccagaa    1080
catataagga actcaactca atagaaaaaa aattcagtta aaaaatgggc aaaagacctg    1140
cgtagacatt tctaaaaaga acacatacaa atggctgaca gatatatgaa aatatgctta    1200
acatcactaa ttatcaggaa aatgcaaatc aaaaccacag tgagatacta cctcacccca    1260
gtcagaatgg ctgttctcaa aaagacaaag gataacaaat gttgggaagg atgtggagaa    1320
aggggaactc ttatgcactt ttggtgagaa tgtaaattag tacaactatt atgggaaaca    1380
gtatggaggt tctcccgcct cccccagagg caggttctct ctctgttgcc caggctggag    1440
tgcagtggtg taatcatagc tcgcttggcc tcaaacttat gagctcaagt catcctcctg    1500
cctcagcctt ctgagtagct gggactatag gtgtgtgcca cgtcatctag ttagttctta    1560
attttttgta gagacagtgt cttgctatgt ttcacaagct ggtcttgaac ttctggcctc    1620
aagcaatcct cctccattgg cctcccaaag cactgggctt tataagcatg agccacccta    1680
cccagctgga ggttcttcac aaaaaaagat tggctatata tccaaagaaa ataaataata    1740
cattctttca tagcaaaaga gaggatcagc atatattaaa gagtgcttat tttaccactg    1800
aacaagttgt aaaagtagac gttcttaagc tcatgagcct gtggtaaata ctaggtagtc    1860
actcaaaatg tgtagatttc aagcatactt tggactttgg aagtagacac atgagattgt    1920
agcacggaat cctaaaatcc taggccaaag aagacttta gaaatcatag ttcatactgt    1980
ttctttatg caggatttag ctaatccatc ttagaaaaaa aaagcaagac tattttaat    2040
atccagaaat acatattata gtcattggcg actggccttg aggggcata acaaaacatg    2100
```

6699

```
gttgtatgtc agtgatactg caattgatga aatgttgcta tttagaaaca gtaaaaggaa     2160
gcccccagaa gttaaaaata cctgttggac actaaaaaaa                            2200
```

<210> 9131
<211> 234
<212> DNA
<213> Homo sapiens

<400> 9131
```
cagacctatc tagctaagct gctgttgaat tcttggacca tagagactat gagataatga       60
atatttattg ttgtccagtg cagctaaaaa ttttggggta agttgtttca tagcagtata      120
taattctctt ctgaagttgt gctgaagggg aaatttacac ccaattcatg tattagaaag      180
aagctgaaat tcagtgatca caagtgtatt tctcaagaag ttaggagaag aaca            234
```

<210> 9132
<211> 93
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (74)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (85)
<223> n equals a,t,g, or c

<400> 9132
```
gaggcaggag aatggcgtga acctgggaga cggagcttgc agtgagccga gatcgcacca       60
ctgcactcta gccngggcga cagancgaga ctc                                   93
```

<210> 9133
<211> 7591
<212> DNA
<213> Homo sapiens

<400> 9133
```
acgcaacttc tgcagctaca gctgtgtggt agctttccag gtatggcttc aggaaccttc       60
ctcttcttca gtcagtgagt cacctactgt atgagtctgt tcttgcactc ctctaaagaa      120
ataccctaga ctgggtaatt tataaagaaa gaggtttaat tggctcacag ttccacaggc      180
tgtacaggta gcatggctgg agaggcctca ggaaactttc aattatggcg gaaggcgaag      240
gggaagccgg cacgtcttac atgatgggct caagaggaag agagagaagc gggaggtgct      300
acacttttaa acaaccagat agtgagaact cactatcacc agaacagcag gggagaaatc      360
caccccatg atccagtcac ttcctgccag gctcctcccc caacattggg gattaccgac        420
tggacatgag atttgggcag ggacacgaat tcaaacctat cacctactat agtaatgcac      480
atttattagg tgtttgctag ggcctgggtt gtataagttt ctatatcatt cctattaaac      540
ttggatttgt agttcattct gtatttggaa tttaatttaa ctgccttcta taaaattgaa      600
tggtactttt atcacccata ttatctattg ggaggatatt attttgagg aagattatta        660
gttaagttat tttatttttt catcataaat gagactcccc ccattccgta ataagctgct      720
cagaggcagg aacattgcct gttaacagat gtaccttaca tgcctagaac ggtgcttggc      780
atatgtaggc acacaatact tctttgtttt aacaaagatt aaattgatac ttttttgttgt     840
tttgtttttc cagaatttat tcaacaaacc aactggaatg aattcttcag tagtgccctt      900
gtctcagggc caagtaattg taagcatccc cacaggttcc acagtgtcag ccggaggagg      960
tagcacatct gctgtttctc ccacctccat cagtagctct gctgcagctg tctccagcg      1020
tctcgctgcc cagtcccagc atgttgggtt tgcacgaagt gttgtgaaac tcaaatgtca     1080
acactgtaac cgtctttttg ccacaaaacc agaacttctt gactataagg taaagtatag     1140
```

```
catgttcatg ataagatttt gagtatacgt gggtctattt gtaaaattat tttaactttt    1200
gcatctctca aaatcatacc atttgttttg aaagtaaggg agataaggag ttccataaga    1260
caaaccaaat gtttaattag tacttaatga ttatttcttt gcagggcaaa atgtttcagt    1320
tctgtggcaa gaattgttct gatgaatata agaaaataaa taatgtaatg gcaatgtgtg    1380
aatattgtaa aattgagaaa attgtaaagg agactgttcg gttctcaggt gctgacaagt    1440
cattctgtag tgaaggtaaa gacagaagat tatcttacct actgagcatg ttggttgttt    1500
taaagcagtt gatgatgatt taagctttca ctgtctaagt taatctgttt tattgtttat    1560
gtataacgta aatgcctttt cgattcattt acacttagtt cattcttttt tgatctagtt    1620
ttcttatatt atgtagctgt taaaatgaag tgaaagattt gcaaagtata atgcacgaag    1680
aagatgatgt gaaaaacatt taacatcctt aggttcccca ttattaggtt gatcgggacc    1740
tcaaagagct tctagttcgt gtacttattt ctaaatggga tgccttaaat tatggtaaca    1800
ttctaagttt atactttat tgtcttaaac agccattata tttctgaata taaatggctt    1860
gaatatgcaa attaatatgt ggaagattgt tttccttaga taactcttct atatgtttat    1920
aatgtttttat tttactctaa agctgtatta gccttctaga gcaagggctt tcaaaccttt    1980
tgataacacc aaagaagaaa tacatttaca ctgtgaccca gtatattttc acatacctaa    2040
ataaaagttt ttttgtttt tgttttttgtt ttttgagaca gagtcttgct ttgtcaccca    2100
ggctggaatg ccatggagcg atcttggctc actgcaacct ctgcctcctg ggttcaagcg    2160
attctcctgc ctcaacctcc cgagtagctg ggactacagg cacccgccac cacacctggc    2220
taatttttgt atttttagta gagacagggc ttcaccatgt tggccaggct ggtctccaac    2280
tcctgacctc aggtgatcca cccactttgg cctcccagag tgctgggatt acaggtgtga    2340
gccactacgc ccagccccaa aagtttcatg aaataaaatc gatgcagttt aatattttct    2400
cttctgtgct atcctgtctt atatcattta aaacaaaaac aaaaacaaag caaaacaaaa    2460
actagtatag atactctaaa aaatcaagat actctgtgaa ctggtcagga cccaagtgtg    2520
aaaactttgt cctagaccac ttatttttct ttttttgtt tttgttttta tttgacatgg    2580
ggtcttgcca tgttgcccag gctggtctca aactcctggg ctcaagcact cctcccgcca    2640
gcctcccaaa gtgttgggat tacaggtgtg agccactgca ccgggcctgt cctaggccat    2700
ttaaagttgc agaaaactaa tacttctacc taatgttaat tttatctttc ctgattttta    2760
ggttgcaaat tgctttataa acatgacttg gcaaacgct ggggaaatca ctgtaaaatg    2820
tgcagttatt gtttacagac atctcccaaa ttggtacaga ataatttagg agggaaagtg    2880
gaagagttct gttgtgaaga atgcatgtcc aaatatacag ttttgttcta tcaggtaaat    2940
agaattcaca ttcctgggtt tttcattcta gggcataaat tattcccttt taaaatttca    3000
tgtcacataa aggacaattt aattatttaa aactttaag tattaaatgt tttatgcctt    3060
ctagcaatta atataagatt tagaaagact ttaatgttat tgaagttttc ttttgttttt    3120
aatttcctgt aggagacata tcagtcttaa gacattaaaa tatttaaact tataatttta    3180
ttcacttatt atttaaataa agtgaatttg tcttctgaag tctgaggaag atagaccttta    3240
ttttttatttc actttgtttt ttaattgcta tagagtgaag tctgtatgtt acatgtgttt    3300
tttaaaaaaa attagtataa aatcagctgg gcgcggtggc tcacgcctgt aatcccagca    3360
ctttgggagg ccgaggcggg tggatcatga ggttaggaga tcgagaccat cctggctaac    3420
atggtgaaac cccgtctcta ctaaaaatac aaaaaaatta gctgggtgtg gtggcgggcg    3480
cctgtagtcc cagctacctg ggaggctgag gcaggagaat tgcatgaacc caggaggtgg    3540
agcttgcagt gagctgagat cacgccactg cactccagcc tgggcgatag agcaaggctc    3600
tgtctcaaaa aaaaaaaaaa atatatatat atatgtgtgt gtgtgtgtgt gtgtgtgtgt    3660
ataatcattg ataaagacaa actaattttt tgatctaaat tctaagttaa tttcgtcact    3720
tgttatgtgt gtcttatttt tattttgtca gaccacagat aatttgtttc ttactccttg    3780
actaccttct tcttttttaga tggccaaatg tgatgcttgt aagcgacagg gtaaactcag    3840
tgagtccttg aaatggcgag gggaaatgaa acattctgt aacctgcttt gtatcttgat    3900
gttctgtaat cagcaaagtg tatgtgaccc gccttcacaa aataatgcag gtaaaattaa    3960
ccttaggtac tgaatggagt ctttggtcaa tactaggaac tactgttctt ttacagatca    4020
ggaactgtgt aaacagttgt cattaatttc atgaaacctc agtttccttg tattctgtat    4080
caataacatt tagcttttt tgttgaacac cttatttcac tgtcgtccgt gtgaagagac    4140
caccaaacag gctttgtgtg agcaacaagg ctgttatttt cacctgggtg caggcggtct    4200
gagtctgaaa agagtcagtg aagggagatg gggtggggcc gtttttataag atttgggtag    4260
gtaaaggaaa aagggggggtt gttctctggc gagcaggagt gggggtcaca aagtgctcag    4320
tgggggagct ttttgagcca ggatgagcca ggaaaaggaa tttcacaagg taatgtcatc    4380
agttaaggca ggaacaggcc attttcactt cttttgtgtt ggaatgtcat cagttaaggc    4440
aggaaccggc catctggatg tgtacctgca ggtcagaggg gatatgatgg cttagcttgg    4500
gctcagaggc ctgacacctt agattaaagc tgagtaaaaa tgagtttttg attaaataga    4560
tttctttgag aatattgaat caaataaact ctgtaagaac ttaaatttat gggaaaggat    4620
aacagttaat ggtttgtaat tgagtataat tggcttcctt aaaaaatcct ttgagactac    4680
ttataacaaa agacataaag tcaaaatcac atggcctttt aaatatacca tgtgcaggcc    4740
agatgtgatg gttcatgcct gtaatcccac cgcctttgga atgctgaggt gggaggacgg    4800
```

```
cttgaggcca ggagttcagg ggtggagtga gcggtgacca cagcacagca atcccagctg   4860
gatgatatag tgagaccctg cctctaaaaa attaaaataa aataaaacta tatgtcgtgg   4920
gcgtgactag ttggggccag tgtcacgggc tgtaaaggaa tttaccaaga cagtcatagg   4980
taaaggcaga tttattggag aaagtgtgaa aatatgttgc aaggttgcag tgagcagcac   5040
agcagagaag gggaagtctg caaagacgag gcggcttgag ggacgtttta catggtcctg   5100
ctggagggga ctgcttgcag aatgtagccg tgctcctggg gctacctgta ggaggtcatc   5160
tctcagagta attactcatt gttctccccc acctgggccc cttcctcttt gttgcttact   5220
taccttgtca ggacttactt atcttatcag gactacacac tatgtgctag gccactttat   5280
ctcagaaaat ttattatttta aaaacaacac tagtatcatc ctgaaagcta gaagaattta   5340
agtgtagtct ccttacaaat aaaagcaaaa tctacaagag cctactccaa aacttaaaaa   5400
aaaattattt ctatataaag gcaagattta agaaaaacat taggctgaat tgtccattaa   5460
atctaacctg tgatcttcat tggtattgtg tgtttgagga tttgcattgt tggttttttaa   5520
gttggttttt aagttagact atttgttgcc ttttttatgt aaagataaag ttaatagaaa   5580
actttcaagt tttactaatt aaaaagtaga aaaccagggg atggtggctc atgcctgtaa   5640
tctcagcact ttgggaggct gaggcaggcg gatcacgagg tcaggagttt gagaccatcc   5700
tggccaacat ggtgaaaccc cgtctctact aaaatacaaa aaattagctg ggtgtggtgc   5760
tgcgcacctg tagtcccagc tacttgggag gctgaggcag gggaatcgct tgaacccggg   5820
aggtggaggt cgctgtgagc tgatatcgtg ccactgcact ccagcctggg cagcagagtg   5880
agactctgtc tcaaaaagaa aaaaaaaaag aagaaaccaa aaacccagtt aatcctaaag   5940
tgactttttg ctccaacaga aattactcaa acctgaaaac attgtttaac ttccttgaaa   6000
tggtttctgt gtaagtacat ataaatcacg tgaggtttcc ttattttgt ttatttaat    6060
cagcaaatat ttccatggtt caagctgctt cagcaggacc tccatctctg agaaaagatt   6120
cgactccagt tatagccaat gtagtatcat tggcaagtgc ccctgctgct cagcctacag   6180
tgaattctaa cagtgtctta caaggtatgg cttgattggg aagcatttat ctagcctatt   6240
taggttgaat gcagtggtcc cctaacttcc tttcatcagg gattattttc atacatttga   6300
cacattcaat attaggaata gtggcttgct gctcaagttt catatctcat actttagatt   6360
gctagtttct tccgttgaga ttaaaaaac acatgttctt agtatgaggg tttgtgttta   6420
tgtactgata atcagctttt aatgctaatg ttaaaataat tgtaaagatc ataaatttat   6480
gttttaattt atatcaaggt gcagttccaa cagtaacagc gaaaatcatc ggtgatgtaa   6540
gttttattac ttttattggt attgtcactg tatttatttt tcattttcat acagtataaa   6600
tatgtgtgaa ctaatttgcc ctccttcttt attatatgaa atagatttca ttagctcatt   6660
taatctttgt tcaggaatag gattttctgg ctatttaaat aggtctttta tgtactttaa   6720
tatctttgaa tgctggctat gtagttactg aaagttttc tttaattaca caaaattgaa   6780
gtaaattgta caggatttag gcctgaaaga cttttggatg ttttgtgatg tactcagatt   6840
ataaataaaa tgtttataca atgtagctta tcctccctct gacccattac agattatact   6900
gtaaaaaaaa attctttttt taacccatta atatttctg ctttgtctct aaaagaaga    6960
aaataaataa tgagaaaaac ttctgactgg aacagtggca tttctaaggt gtttctccag   7020
gtttctggga taactttcac gttgtcttta ttcaagttac ttaaatgatc ataagtgatt   7080
ctgttattcc tagttatctt gaatctctca agtcctctgt gtcttaatca ggaagtaaga   7140
attctcattt taaacttagc cagcattgtt attgatcagc agtgtgttac aatagaaata   7200
gcatttttct tggtaaatag aaattgtgat tagagacatg cagagtaata tatagttatt   7260
aaaacattcc ttgattacta ttaatatttt aggagtattg tatttcttat acatttggtt   7320
gaatatttac ttgctatgtc ctccatgtaa ttccaatatg acatttcctt taatattata   7380
atatttctta taattacaat gagattttta aaaatgtttt tggtttctaa tttgttttttt   7440
tactaggcaa gtactcaaac agatgccctg aaactgccac cttcccaacc tccaaggctt   7500
ttgaagaaca aagctttatt atgcaaaccc atcacacaga ctaaagccac ctcttgcaaa   7560
ccacataccc aaaacaaaga atgccagaca g                                  7591


<210> 9134
<211> 7595
<212> DNA
<213> Homo sapiens

<400> 9134
acgcaacttc tgcagctaca gctgtgtggt agctttccag gtatggcttc aggaaccttc   60
ctcttcttca gtcagtgagt cacctactgt atgagtctgt tcttgcactc ctctaaagaa   120
ataccctaga ctgggtaatt tataaagaaa gaggtttaat tggctcacag ttccacaggc   180
tgtacaggta gcatggctgg agaggcctca ggaaactttc aattatggcg gaaggcgaag   240
gggaagccgg catgtcttac atgatgggct caagaggaag agagagaagc gggaggtgct   300
acacttttaa acaaccagat agtgagaact cactatcacc agaacagcag gggagaaatc   360
```

```
caccccatg atccagtcac ttcctgccag gctcctcccc caacattggg gattaccgac      420
tggacatgag atttgggcag ggacacgaat tcaaacctat cacctactat agtaatgcac      480
atttattagg tgtttgctag ggcctgggtt gtataagttt ctatatcatt cctattaaac      540
ttggatttgt agttcattct gtatttggaa tttaatttaa ctgccttcta taaaattgaa      600
tggtactttt atcacccata ttatctattg ggaggatatt attttgagg aagattatta      660
gttaagttat tttattttt catcataaat gagactcccc ccattccgta ataagctgct      720
cagaggcagg aacattgcct gttaacagat gtaccttaca tgcctagaac tgtgcttggc      780
atatgtaggc acacaatact tcttgtttt aacaaagatt aaattgatac ttttgttgt      840
tttgttttc cagaattat tcaacaaacc aactggaatg aattcttcag tagtgccctt      900
gtctcagggc caagtaattg taagcatccc cacaggttcc acagtgtcag ccggaggagg      960
tagcacatct gctgtttctc ccacctccat cagtagctct gctgcagctg tctccagcg     1020
tctcgctgcc cagtcccagc atgttgggtt tgcacgaagt gttgtgaaac tcaaatgtca     1080
acactgtaac cgtcttttg ccacaaaacc agaacttctt gactataagg taaagtatag     1140
catgttcatg ataagatttt gagtatacgt gggtctattt gtaaaattat ttttaacttt     1200
gcatctctca aaatcatacc atttgttttg aaagtaaggg agataaggag ttccataaga     1260
caaaccaaat gtttaattag tacttaatga ttatttcttt gcagggcaaa atgtttcagt     1320
tctgtggcaa gaattgttct gatgaatata agaaaataaa taatgtaatg gcaatgtgtg     1380
aatattgtaa aattgagaaa attgtaaagg agactgttcg gttctcaggt gctgacaagt     1440
cattctgtag tgaaggtaaa gacagaagat tatcttacct actgagcatg ttggttgttt     1500
taaagcagtt gatgatgatt taagctttca ctgtctaagt taatctgttt tatgtttatg     1560
tataacgaaa tgccttttcg attcatttac acttagttca ttcttttttg atctagtttt     1620
cttatattat gtagctgtta aaatgaagtg aaagatttgc aaagtataat gcagaagaag     1680
atgatgtgaa aaacatttaa catccttagg ttccccatta ttaggttgat cgggacctca     1740
aagagcttct agttcgtgta cttatttcta aatgggatgc cttaaatgat ggtaacattc     1800
taagtttata ctttttattgt cttaaacagc cattatattt ctgaatataa atggcttgaa     1860
tatgcaaatt aatatgtgga agattgtttt ccttagataa ctcttctata tgtttataat     1920
gttttatttt actcaaaagc tgtattagcc ttctagagca agggctttca aacctttga     1980
taacaccaaa gaagaaatac atttacactg tgacccagta tattttcaca tacctaaata     2040
aaagtttttt ttgtttttgt ttttgttttt gtttttattt gacatggggt     2100
tggaatgcca tggagcgatc ttggctcact gcaacctctg cctcctgggt tcaagcgatt     2160
ctcctgcctc aacctcccga gtagctggga ctacaggcac ccgccaccac acctggctaa     2220
tttttgtatt tttagtagag acagggcttc accatgttgg ccaggctggt ctccaactcc     2280
tgacctcagg tgatccaccc actttggcct cccagagtgc tgggattaca ggtgtgagcc     2340
actacgccca gccccaaaag tttcatgaaa taaaatcgat gcagtttaat attttctctt     2400
ctgtgctatc ctgtcttata tcatttaaaa caaaaacaaa aacaaagcaa aacaaaaact     2460
agtatagata ctctaaaaaa tcaagatact ctgtgaactg gtcaggaccc aagtgtgaaa     2520
actttgtcct agaccactta ttttctttt ttttgttttt gtttttattt gacatggggt     2580
cttgccatgt tgcccaggct ggtctcaaac tcctgggctc aagcactcct cccgccagcc     2640
tcccaaagtg ttgggattac aggtgtgagc cactgcaccg ggcctgtcct aggccattta     2700
aagttgcaga aaactaatac ttctacctaa tgttaatttt atctttcctg attttaggt     2760
tgcaaattgc tttataaaca tgacttggca aaacgctggg gaaatcactg taaaatgtgc     2820
agttattgtt tacagacatc tcccaaattg gtacagaata atttaggagg gaaagtggaa     2880
gagttctgtt gtgaagaatg catgtccaaa tatacagttt tgttctatca ggtaaataga     2940
attcacattc ctgggttttt cattctaggg cataaattat tcccttttaa aatttcatgt     3000
cacataaagg acaatttaat tatttaaaac ttttaagtat taaatgtttt atgccttcta     3060
gcaattaata taagatttag aaagacttta atgttattga agtttctttt gttttttaat     3120
ttcctgtagg agacatatca gtcttaagac attaaaatat ttaaacttat aattttattc     3180
acttattatt taaataaagt gaatttgtct tctgaagtct gaggaagata gaccttattt     3240
ttatttcact ttgtttttta attgctatag agtgaagtct gtatgttaca tgtgtttta     3300
aaaaaaatt agtataaaat cagctgggcg cggtggctca cgcctgtaat cccagcactt     3360
tgggaggccg aggcgggtgg atcatgaggt taggagatcg agaccatcct ggctaacatg     3420
gtgaaacccc gtctctacta aaaatacaaa aaattagct gggtgtggtg gcgggcgcct     3480
gtagtcccag ctacctggga ggctgaggca ggagaattgc atgaacccag gaggtggagc     3540
ttgcagtgag ctgagatcac gccactgcac tccagcctgg gcgatagagc aaggctctgt     3600
ctcaaaaaaa aaaatatat atatatatat gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt     3660
gtgtataatc attgataaag acaaactaat ttttgatct aaattctaag ttaatttcgt     3720
cacttgttat gtgtgtctta tttttatttt gtcagaccac agataatttg tttcttactc     3780
cttgactacc ttcttctttt tagatggcca aatgtgatgc ttgtaagcga cagggtaaac     3840
tcagtgagtc cttgaaatgg cgaggggaaa tgaaacattt ctgtaacctg ctttgtatct     3900
tgatgttctg taatcagcaa agtgtatgtg acccgccttc acaaaataat gcaggtaaaa     3960
ttaaccttag gtactgaatg gagtctttgg tcaatactag gaactactgt tcttttacag     4020
```

6703

```
atcaggaact gtgtaaacag ttgtcattaa tttcatgaaa cctcagtttc cttgtattct    4080
gtatcaataa catttagctt tttttgttga acaccttatt tcactgtcgt ccgtgtgaag    4140
agaccaccaa acaggctttg tgtgagcaac aaggctgttt atttcacctg ggtgcaggcg    4200
gtctgagtct gaaaagagtc agtgaaggga gatggggtgg ggccgtttta taagatttgg    4260
gtaggtaaag gaaaaagggg ggttgttctc tggcgagcag gagtggggt cacaaagtgc      4320
tcagtggggg agcttttga gccaggatga gccaggaaaa ggaatttcac aaggtaatgt      4380
catcagttaa ggcaggaaca ggccattttc acttcttttg tgttggaatg tcatcagtta    4440
aggcaggaac cggccatctg gatgtgtacc tgcaggtcag aggggatatg atggcttagc     4500
ttgggctcag aggcctgaca ccttagatta aagctgagta aaaatgagtt tttgattaaa     4560
tagatttctt tgagaatatt gaatcaaata aactctgtaa gaacttaaat ttatgggaaa     4620
ggataacagt taatggtttg taattgagta taattggctt ccttaaaaaa tcctttgaga      4680
ctacttataa caaaagacat aaagtcaaaa tcacatggcc ttttaaatat accatgtgca     4740
ggccagatgt gatggttcat gcctgtaatc ccaccgcctt tggaatgctg aggtggggag     4800
acggcttgag gccaggagtt caggggtgga gtgagcggtg accacagcac agcaatccca      4860
gctggatgat atagtgagac cctgcctcta aaaaattaaa ataaaataaa actatatgtc     4920
gtgggcgtga ctagttgggg ccagtgtcac gggctgtaaa ggaatttacc aagacagtca     4980
taggtaaagg cagatttatt ggagaaagtg tgaaaatatg ttgcaaggtt gcagtgagca     5040
gcacagcaga gaaggggaag tctgcaaaga cgcagcggct tgagggacgt tttacatggt     5100
cctgctggag gggactgctt gcagaatgta gccgtgctcc tggggctacc tgtaggaggt     5160
catctctcag agtaattact cattgttctc ccccacctgg gcccttcct cttttgttgct      5220
tacttacctt gtcaggactt acttatctta tcaggactac acactatgtg ctaggccact     5280
ttatctcaga aaatttatta tttaaaaaca acactagtat catcctgaaa gctagaagaa     5340
tttaagtgta gtctccttac aaataaaagc aaaatctaca agagcctact ccaaaactta     5400
aaaaaaaatt atttctatat aaaggcaaga tttaagaaaa acattaggct gaattgtcca     5460
ttaaatctaa cctgtgatct tcattggtat tgtgtgtttg aggatttgca ttgttggttt      5520
ttaagttggt ttttaagtta gactatttgt tgcctttttt atgtaaagat aaagttaata     5580
gaaaactttc aagtttact aattaaaaag tagaaaacca gggtatggtg gctcatgcct       5640
gtaatctcag cactttggga ggctgaggca ggcggatcac gaggtcagga gtttgagacc     5700
atcctggcca acatggtgaa accccgtctc tactaaaata caaaaaatta gctgggtgtg     5760
gtgctgcgca cctgtagtcc cagctacttg ggaggctgag gcaggggaat cgcttgaacc     5820
cgggaggtgg aggtcgctgt gagctgatat cgtgccactg cactccagcc tgggcagcag     5880
agtgagactc tgtctcaaaa agaaaaaaaa aaagaagaaa accaaaaccc agttaatcct      5940
aaagtgactt tttgctccaa cagaaattac tcaaacctga aaacattgtt taacttcctt     6000
gaaatggttt ctgtgtaagt acatataaat cacgtgaggt ttccttattt ttgtttattt     6060
taatcagcaa atatttccat ggttcaagct gcttcagcag gacccccatc tctgagaaaa     6120
gattcgactc cagttatagc caatgtagta tcattggcaa gtgcccctgc tgctcagcct     6180
acagtgaatt ctaacagtgt cttacaaggt atggcttgat tggaaagcat ttatctagcc     6240
tatttaggtt gaatgcagtg gtcccctaac ttcctttcat cagggattat tttcatacat     6300
ttgacacatt caatattagg aatagtggct tgctgcacaa gtttcatatc tcatacttta     6360
gaattgctag tttcttccgt tgaattaaaa aaacacatgt tcttagtatg agggtttgtg     6420
tttatgtact gataatcagc ttttaatgct aatgttaaaa taattgtaaa gatcctaaat     6480
ttatgtttta atttatatca aggtgcagtt ccaacagtaa cagcgaaaat catcggtgat     6540
gtaagttttg ttacttttat tggtattgtc actgtattta tttttcattt tcatacagta     6600
taaatatgtg tgaactaatt tgccctcctt ctttattata tgaaatagat ttcattagct     6660
catttaatct ttgttcagga ataggatttt ctggctattt aaataggtct tttatgtact     6720
ttaatatctt tgaatgctgg ctatgtagtt actgaaagtt tttctttaat tacacaaaat      6780
tgaagtaaat tgtacaggat ttaggcctga aagacttttg gatgttttgt gatgtactca     6840
gattataaat aaaaatgttta tacaatgtag cttatcctcc ctctgaccca ttacagatta     6900
tactgtaaaa aaaaattctt tttttaaccc attaatattt tctgctttgt ctcttaaaag     6960
aagaaaataa ataatgagaa aaacttctga ctggaacagt ggcatttcta aggtgtttct     7020
ccaggtttct gggataactt tcacgttgtc tttattcaag ttacttaaat gatcataagt     7080
gattctgtta ttcctagtta tcttgaatct ctcaagtcct ctgtgtctta atcaggaagt     7140
aagaattctc attttaaact tagccagcat tgttattgat cagcagtgtg ttacaataga     7200
aatagcattt ttcttggtaa atagaaattg tgattagaga catgcagagt aatatatagt     7260
tattaaaaca ttccttgatt actattaata tttaggagt attgtatttc ttatacattt      7320
ggttgaatat ttacttgcta tgtcctccat gtaattccaa tatgacattt cctttaatat     7380
tataatattt cttataatta caatgagatt tttaaaaatg tttttggttt ctaatttgtt     7440
ttttactag gcaagtactc aaacagatgc cctgaaactg ccaccttccc aaccttcaag     7500
gcttttgaag aacaaagctt tattatgcaa acccatcaca cagactaaag ccacctcttg     7560
caaaccacat acccaaaaca aagaatgcca gacag                               7595
```

<210> 9135
<211> 2043
<212> DNA
<213> Homo sapiens

<400> 9135
```
taagatgata gcagtaatga agagaaatgg accttgagtt tcagaaactt gtattctaat      60
ggaccttcaa aagatggcaa gtattgtgtc tggaattggt gggttcttgg tctcgctgac     120
ttcaagaatg aagccacgga ccctcgcggt gagtgttaca gttcttaaag atggtgtgtc     180
tagagtttgt tccttcagat gttcagatgt ttctggagtt tcttccttct ggtgggtttg     240
tggtcttgct ggcttcagga gtgaagctac agaccttcac ggtgagtgtt gcagctcata     300
aaggtggcgc ggacccaaag aatgagcagc agcaagattt attgcaaaga gccaaagaac     360
aaagcttcca cagcgtggta aggggacccg agtgggttgc tgccgctggc tcgggcagcc     420
tgcttttatt cccttatctg accccaccca cagcctactg attggcccat tttatggaga     480
gctgattggt ccattttaca gagagctgat tggtccattt tgacagggtg ttgattggtg     540
cgtttacaat ccctgagcta gacacagagt gctgattggt gtatttacaa tcctctagct     600
agatgtaaaa gttctccaag tcctcactag attaactaga cacagagcac tgattggtgt     660
gtttacaaac cttgagatag acacagggtg ctaattggtg tatttacaat cctttagcta     720
gacataaagg ttctccaagc ccccaccaga ttagctagat acagagtgct cattggtgca     780
tccacgaacc ctgagctaga cacagagtgc tgattggtgc atatacagtc ctccagctag     840
acataaaagt tctccaagtc gtcacctgac tcaggagccc agctggcttc gcctagtgga     900
tcccgcgcca gggccgtggg tggagctgcc caccagtccc gcacggcgcc tgcacttctc     960
agcccttggg cagtcaatgg gactgggtgc cgtggagcag ggggtgatgc ctgttgggga    1020
ggctcggtcc atgctggagc ccaccgccag ggggctcggc catggcgggc tgcaggtccc    1080
gagccctgcc ccgcggggag gtggctgagg cctggcgaga gttcgagtgt ggcacgggca    1140
gtctggcact gctgggggat ccggcgctcc ctggcctggg tgctaagtcc ctcactgccc    1200
ggggccggcc ggcttctctg agtgtggggc ctgccaagcc cacgcccacc cagaactttc    1260
actggcccaa gagcaacgca cgcagcccgg gttcccaccc gtgcctctcc ttccacacct    1320
ccccgcaagc agaggggggct ggctccatac ttggccagcc cagagagggg ctcccacagt    1380
gcagcagcgg actgatgggc tcctcaaggg tggccagagc agacgccaag gccgaggagg    1440
cgctgagagc gagcgagggc cgccagcacg ttgtcacctc tcagtatgag tgtgttgtag    1500
tgtatgtgtg aaagggagtt ttgcaatggg agtatgggat gatgtgttag tcatagttct    1560
acagagaaat agactatcta tctatctata tctcagagag agagagagag agagattgag    1620
tgtaaggaat tggctcatgc aattatggag accaagtgcc aagatatgga gacggcaagc    1680
tggagactca ggagagctgt ggcgtagtag tttctgtcca agtccagagg cctgagaacc    1740
aggagagcca gtagtataag ttctagtctg aaagctggca ggcccaagac caagaagagc    1800
ccaagtttca gtttgagtcc cgaagcagga aaagactgat attccatttc aagcagtcag    1860
acaagtctta tggcagggtc agccttttag ttctcttcag gccatcaact gattggataa    1920
gggcgactca cattagggag ggcaatttgc ttccaattca gctgtttatc tcatcaaaaa    1980
acaccctcac agacacactt ggaataatgt ttgaccaaat gtctggacac tttgtgcccc    2040
agt                                                                  2043
```

<210> 9136
<211> 379
<212> DNA
<213> Homo sapiens

<400> 9136
```
gcactcagag actggactgt gttagctggg aaggatcaca gtctgccagg aaatcagttc      60
tcaccttcca atgggacagg atttgagggt gggagttggg gtaggagaaa gggagcagag     120
aggaaaaatt tgtaactgtc atgcaaaagg ccagttaaga gaatctcaac tactctgggc     180
accaaagagc agctttttagt agatagttga gttggagccg ggagcagcag catcaacaac     240
agcaacagct gaaatagctt gtgcaggaca ttagagctct tcatgggtag agtgcaggaa     300
ggccatgaca atggaagcag taatagaaat catacaggga ggaaaatgat gtgcagctta     360
atatggtgag atgcccagt                                                  379
```

<210> 9137
<211> 301

<212> DNA
<213> Homo sapiens

<400> 9137
```
gggccgggcg cagtggctca cgcctgtaat cccagcactt tgggaggccg aggtgggcgg    60
atcacgaggt caggagatcg agaccatggt gaaaccccgt ctctactaaa aatacaaaaa   120
aaaaattagc cgggcgtgat ggcggacgct gtagtcccag ctacttggga ggctgaggca   180
ggagaatggt gtgaacccag gaggtggagc ttgcagtgag ccgagattgc gccactgcac   240
tccagcctgg gcgacagagc gagactccgt ctcaaaaaaa aaaaaaagag agagaaatga   300
t                                                                   301
```

<210> 9138
<211> 2654
<212> DNA
<213> Homo sapiens

<400> 9138
```
ccgggcatgg tggtgcgcac ctgtaatccc agctacccgg gaggctgagg caggagaatc    60
acttgaacct gggaggcgga tgttgcagtg agctgagatc atgccattgt actccaccct   120
gggcaacaga gcgagactcc gtctcaaaaa aaagacatga gaataaaaca gtttactgca   180
tataccaagg catatcagat gtttaggaat tgcatacaat tttggaacac atatcaatac   240
aactgtaact caaagaaagc tgaacactat ttcttgtctg acagtgcttt ccatgtttga   300
aatttgattt gggggaactg tatcagatat caaaggttta aaacactaga tatggccggg   360
cgtggtggct gacacctgta atcccagcac tttgggaggc tgaggcaggc agatcacctg   420
aggtcagggg ttcgagacca gcctagctaa catggtgaaa ccccatatct actaaaagta   480
caaaaaaatt agccgggcgt ggtggcatgc acctgaatgt gagctacttg ggaggctgag   540
gcaagagaat cacttgaacc caggaggagg aggttgcagt gagccaagat cacgccagtg   600
cgctccagca tgggcgacag agcagggctc ccatctaaaa aaaataaata aataaatgta   660
aattaaacag atatcaagat aagaaaggtt tgaaatgctc agtgttaaaa taagatcaca   720
ggtcattgta aaacagtcat ttaaacaaag tgataagtca gtgattttta aaaagtcaaa   780
acctgtgctc tttgattagc aggagactcc atcaaagagt aagtttgagg agactgtatc   840
aaagagtaag actccatcaa agactcactt ttccaaataa gacctaataa aggcagcatg   900
agctcaagaa aatctctctc tccctccttt tcttttgtag tttactcaaa agtaaacaaa   960
accttttact atctcctgtt aacactacct gaaaatcttg ttcaaaagag aaaacgaaat  1020
cctacctttg tatcagtata ttattaatat taaacctaat tttaataaaa tcttacaata  1080
aacagatcca tctgagccca gtcagctttg accagataag attttcatga atcttttata  1140
aactcttaca atttattttt ttctttctcc aacttttttag ttttagctat atcatgtaaa  1200
ttttgaaaca atctttaacc tctaaactag gcaaaattac ttttccttta gcaaaactca  1260
caccctcctc tctttttat aactttcttc accaaaaaca catcctactt tcattgtata  1320
ctttgcatac aagagtgttt cccatgtatc tagtactttt aattacatat attaactacg  1380
attttaactc ttagtagttc taatttcaag tgaaaaacct agaaagtaag tagtagttaa  1440
ctggtttatg tctgtatttg tagacaaatc atttcatggt ttcgtagaaa gatatttcta  1500
taaaatataa ttgatgccta ctttttgtt tattaacaga tctaaagatt attaacagat  1560
ctaaatatat ttagcttttt tataccatgt aaaaacaaaa taccaaatta tgtaaactaa  1620
actaaaacat atctaataat taatgttttt gtatcttaat gtatgtagaa atgactcaaa  1680
cattttatga ttatctatta ctttattaaa cctaacatga cttcaaaact ttaaactact  1740
gaaaagaatt ttgaaactgc aacacagata cccttcctaa tgtcttcctc agtcatactg  1800
agtcgcaact acccacgtgg cacccaagta tgattatgaa ggggcagggc ctatctgagt  1860
cctgatttta cacacccata atggagccca ggacagagga cagaactgtg aagataatgt  1920
ctgactcttc ccaccatagc caggagacaa cagccaggcc agagggagta ccacatatgt  1980
ctgcagtcct cacttgttag agcccagaat ctaatgagtc taatacataa gctcacagac  2040
aagtcaaata agcatcaaac atatcacaga agcaatagtt ttatgagctt cagacatcta  2100
gtagagaaag cctaaacctt tctgaccagc agacccaggc aaaaatgtct gattgtgttt  2160
aaaactgaca agtctgaaga cattctaatt ttatttttacc aacaattaaa aagctaattt  2220
tatttctcaa agattactaa aatcacatta acttgaaaaa tatttgggat tattaagcta  2280
tgagcattaa tttgtcagtt tggtaccatg taaacaatat acaaacagat ctgtacacat  2340
atatacataa aaatacaaac ataagtgaag atttcatagc tttgatataa aaattctagc  2400
catgagacaa gtaaaactcg ctattttaaa aggacattgg attcaaagtt cataaataga  2460
acaagttcaa gtttattgta tatgcctgaa gcccttacca agttttaaat aacaagtagc  2520
aaatttatat ttcaagcaca gagaatttaa gctttccaaa aggccaattc aattttacgt  2580
```

tatctttggc aaaaatcatg ttaacagaat ccaaaacagt aaaacataaa ggcctttctt   2640
ctacaaaaaa aaaa   2654

<210> 9139
<211> 2655
<212> DNA
<213> Homo sapiens

<400> 9139
ccgggcatgg tggtgcgcac ctgtaatccc agctacccgg gaggctgagg caggagaatc   60
acttgaacct gggaggcgga tgttgcagtg agctgagatc atgccattgt actccaccct   120
gggcaacaga gcgagactcc gtctcaaaaa aaagacatga aataaaaaca gtttactgca   180
tataccaagg catatcagat gtttaggaat tgcatacaat tttggaacac atatcaatac   240
aactgtaact caaagaaagc tgaacactat ttcttgtctg acagtgcttt ccatgtttga   300
aatttgattt gggggaactg tatcagatat caaaggttta aaacactaga tatggccggg   360
cgtggtggct gacacctgta atcccagcac tttgggaggc tgaggcaggc agatcacctg   420
aggtcagggg ttcgagacca gcctagctaa catggtgaaa ccccatatct actaaaagta   480
caaaaaaatt agccgggcgt ggtggcatgc acctgaatgt gagctacttg ggaggctgag   540
gcaagagaat cacttgaacc caggaggagg agggttgcag tgagccaaga tcacgccagt   600
gcgctccagc atgggcgaca gagcagggct cccatctaaa aaaataaat aaataaatgt   660
aaattaaaca gatatcaaga taagaaaggt ttgaaatgct cagtgttaaa ataggatcac   720
aggtcattgt aaaacagtca tttaaacaaa gtgataagtc agtgattttt aaaaagtcaa   780
aacctgtgct cttttgattag caggagactc catcaaagag taagtttgag gagactgtat   840
caaagagtaa gactccatca aagactcact tttccaaata agacctaata aaggcagcat   900
gagctcaaga aaatctctct ctccctcctt ttcttttgta gtttactcaa aagtaaacaa   960
aacctttac tatctcctgt taacactacc tgaaaatctt gttcaaaaga gaaaacgaaa   1020
tcctacctttt gtatcagtat attattaata ttaaacctaa ttttaataaa atcttacaat   1080
aaacagatcc atctgatccc agtcagcttt gaccagataa gattttcatg aatcttttat   1140
aaactcttac aattttattt tttctttctc caactttta gttttagcta tatcatgtaa   1200
attttgaaac aatctttaac ctctaaacta ggcaaaatta cttttccttt agcaaaactc   1260
acaccctcct ctctttttta taactttctt caccaaaaac acatcctact ttcattgtat   1320
actttgcata caagagtgtt tcccatgtat ctagtacttt taattacata tattaactac   1380
gattttaact cttagtagtt ctaatttcaa gtgaaaaacc tagaaagtaa gtagtagtta   1440
actggtttat gtctgtattt gtagacaaat catttcatgg tttcgtagaa agatatttct   1500
ataaaatata attgatgcct actttttgt ttattaacag atctaaagat tattaacaga   1560
tctaaatata tttagctttt ttataccatg taaaaacaaa ataccaaatt atgtaaacta   1620
aactaaaaca tatctaataa ttaatgtttt tgtatcttaa tgtatgtaga aatgactcaa   1680
acattttatg attatctatt actttattaa acctaacatg acttcaaaac tttaaactac   1740
tgaaaagaat tttgaaactg caacacagat acccttccta atgtcttcct cagtcatact   1800
gagtcgcaac tacccacgtg gcacccaagt atgattatga aggggcaggg cctatctgag   1860
tcctgatttt acacacccat aatggagccc aggacagagg acagaactgt gaagataatg   1920
tctgactctt cccaccatag ccaggagaca acagccaggc cagagggagt accacatatg   1980
tctgcagtcc tcacttgtta gagcccagaa tctaatgagt ctaatacata agctcacaga   2040
caagtcaaat aagcatcaaa catatcacag aagcaatagt tttatgagct tcagacatct   2100
agtagagaaa gcctaaacct ttctgaccag cagacccagg caaaaatgtc tgattgtgtt   2160
taaaactgac aagtctgaag acattctaat tttattttac caacaattaa aaagctaatt   2220
ttatttctca aagattacta aaatcacatt aacttgaaaa atatttggga ttattaagct   2280
atgagcatta atttgtcagt ttggtaccat gtaaacaata tacaaacaga tctgtacaca   2340
tatatacata aaaatacaaa cataagtgaa gatttcatag ctttgatata aaaattctag   2400
ccatgagaca agtaaaactc gctattttaa aaggacattg gattcaaagt tcataaatag   2460
aacaagttca agtttattgt atatgcctga agcccttacc aagttttaaa taacaagtag   2520
caaatttata tttcaagcac agagaattta agctttccaa aaggccaatt caattttacg   2580
ttatctttgg caaaaatcat gttaacagaa tccaaagag taaaacataa aggcctttct   2640
tctacaaaaa aaaaa   2655

<210> 9140
<211> 463
<212> DNA
<213> Homo sapiens

<400> 9140
```
cataaaataa gaatattcac aaatagttcc caaattctgg agaaaatcag gtaaagagga      60
aggtaaatgt ttcacttttc cccacaaaag tatactttac ctaattgcta tgagctataa     120
atggctcaaa aaaaatgtgg actctggcaa aacaaatatg agaagaatca acaatgtttc     180
aaacaaaaag tgattaaaaa atcatttcag tcctctatca gttcagtccc atgtaattaa     240
ttcctgttct gtttcatgtt ggcttagcaa tcttcattaa cacatcagtt ttttattcga     300
attttggaaa tttttaccta gtccaatggt atcatctcca tagttatctg aaacctgtat     360
tcaagaatac ttgaatatgg tacaaactcg tattcaaagt cctttccacg aatttctttg     420
aagacacaca ttttaggatt tggagggaaa caaagctctt aaa                        463
```

<210> 9141
<211> 157
<212> DNA
<213> Homo sapiens

<400> 9141
```
aggctagcta tgtgtatata tatagctatg tgtatatata tatatgtata tatatatagc      60
tatgtgtata tatatatgta tatatatata gatagcctga atgtcagctt ttaattaagc     120
taatttctgg ctatagacct ctttcaaaga aaaaaaa                              157
```

<210> 9142
<211> 463
<212> DNA
<213> Homo sapiens

<400> 9142
```
cataaaataa gaatattcac aaatagttcc caaattctgg agaaaatcag gtaaagagga      60
aggtaaatgt ttcacttttc cccacaaaag tatactttac ctaattgcta tgagctataa     120
atggctcaaa aaaaatgtgg actctggcaa aacaaatatg agaagaatca acaatgtttc     180
aaacaaaaag tgattaaaaa atcatttcag tcctctatca gttcagtccc atgtaattaa     240
ttcctgttct gtttcatgtt ggcttagcaa tcttcattaa cacatcagtt ttttattcga     300
attttggaaa tttttaccta gtccaatggt atcatctcca tagttatctg aaacctgtat     360
tcaagaatac ttgaatatgg tacaaactcg tattcaaagt cctttccacg aatttctttg     420
aagacacaca ttttaggatt tggagggaaa caaagctctt aaa                        463
```

<210> 9143
<211> 157
<212> DNA
<213> Homo sapiens

<400> 9143
```
aggctagcta tgtgtatata tatagctatg tgtatatata tatatgtata tatatatagc      60
tatgtgtata tatatatgta tatatatata gatagcctga atgtcagctt ttaattaagc     120
taatttctgg ctatagacct ctttcaaaga aaaaaaa                              157
```

<210> 9144
<211> 184
<212> DNA
<213> Homo sapiens

<400> 9144
```
cgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg      60
aacctgggag gcggagcttg cagtgagccg agatcgcgcc actgcactcc agcctgggcg     120
acagagcgag agtccgtctc aaaaaaaaaa aaaaaaaga aagaaaaaa gaacaaacaa      180
cagc                                                                  184
```

```
<210> 9145
<211> 147
<212> DNA
<213> Homo sapiens

<400> 9145
ggtcccagct actcgggagg cttaggcagg agaatggcgt gaacccagga ggtggagctt      60
gcagtgagcc gagatcgcgc cactgcactc cagcctgggc gacagagcga gactccatct     120
caaaaaaaaa aaaaaaaaa aattgtg                                          147


<210> 9146
<211> 143
<212> DNA
<213> Homo sapiens

<400> 9146
gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacctgg gaggcggagc      60
ttgcagtgag ccgagatcgc gccactgcac tccagcctgg gcgacagagc gagactccgt     120
ctcaaaaaaa aaaaaaagaa atg                                            143


<210> 9147
<211> 170
<212> DNA
<213> Homo sapiens

<400> 9147
gccgggcgtg gtagcgggcg cctgtagtcc cagctactcg ggaggctgag gcaggagaat      60
ggcgtgaacc cgggaggcgg agcttgcagt gagccgagat ctcgccactg cactccagcc     120
tgggcgacag agcgagactc cgtctcaaaa aaaaaaaaaa aaaagactg                 170


<210> 9148
<211> 171
<212> DNA
<213> Homo sapiens

<400> 9148
aaaaaattag ccgggtgtgg tggcgggcgc ctgtagtccc agctgctggg gaggctgagg      60
caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc ccgccactgc     120
actccagcct gggtgacaga gcgagactcc atctcaaaaa aaaaaaaaa a              171


<210> 9149
<211> 141
<212> DNA
<213> Homo sapiens

<400> 9149
cagctactcg ggaggctgag gcaggagaat ggcgtgaacc tgggaggcag agcttgcagt      60
gagccgagac agcgccactg cactccagcc tgggtgaaag agcgagactc cgtctcaaaa     120
aaaaaaaaaa aaaaaaatt t                                               141


<210> 9150
<211> 162
<212> DNA
<213> Homo sapiens
```

```
<400> 9150
agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg        60
agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa       120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagaaca aa                          162


<210> 9151
<211> 193
<212> DNA
<213> Homo sapiens

<400> 9151
aaaaattagc cgggcgtggt ggcgggcgcc tgtagtccca gctactcgag aggctgaggc        60
aggagaatgg cgtgaacccg ggaggcggag cttgcagtga ccgagatcg cgccactgca       120
ctccagcctg ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaga       180
tcagaaaaaa ata                                                         193


<210> 9152
<211> 98
<212> DNA
<213> Homo sapiens

<400> 9152
tgtgaacctg ggaggtggag cttgcagtga gcggagatcg tgccactgca ctccagcctg        60
ggtgacagag tgagactcca tctcaaaaaa aaaaaagg                               98


<210> 9153
<211> 153
<212> DNA
<213> Homo sapiens

<400> 9153
cccagctact cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca        60
gtgagccgag atcgcgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa       120
aaaaaaaaaa aaaaaaaaga aagcagtggg gcc                                    153


<210> 9154
<211> 202
<212> DNA
<213> Homo sapiens

<400> 9154
tactaaaaat acaaaaaatt agccgggcgt agtggcgggc gcctgtagtc ccagctactc        60
gggaggctta ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga       120
tcccgccact gcactccagc ctgggcgaca gagcgagact ccatctcaaa aaaaaaaaaa       180
aaaaaaaaaa aaaaaaaga aa                                                 202


<210> 9155
<211> 166
<212> DNA
<213> Homo sapiens

<400> 9155
ctgggcgtgg tggcgggtgc ctgtagtccc agctacttgg gaggctgagg caggagaatg        60
gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc aggccactgc actccagcct       120
gggcaacaga gtgagactcc gtctcaaaaa aaaaaaaaaa aagata                      166
```

6710

```
<210> 9156
<211> 190
<212> DNA
<213> Homo sapiens

<400> 9156
atcactgggc gtagtggcgg gcgcctgtag tcccagctac ttgggaggct gaggcaggag    60
aatggcgtga acccgggagg cggagcttgc agtgagccga gatcccgcca ctgcactcca   120
gcctgggcga cagagcgaga ctccgtctca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa   180
aaaaaagaaa                   _                                       190


<210> 9157
<211> 193
<212> DNA
<213> Homo sapiens

<400> 9157
cgggcgtggt agcgggcgcc tgtagtccca gctactcggg aggctgaggc aggagaatgg    60
cgtgaacccg ggaggcggag cttgcagtga gccgagatcg cgccactgca ctccagcctg   120
ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaattgac   180
tcctaatcaa aaa                                                       193


<210> 9158
<211> 195
<212> DNA
<213> Homo sapiens

<400> 9158
aaatacaaaa attagccggg cgtagtggtg ggcgcctgta gtcccagcta ctcgggaggc    60
tgaggcagga gaatggcgtg aacccgggag gcggagcttg cagtgagccg agatcccgcc   120
actgcactcc agcctgggcg acagagcgag actccgtctc aaaaaaaaaa aaaaaaaaga   180
taattctaac aaaca                                                     195


<210> 9159
<211> 2884
<212> DNA
<213> Homo sapiens

<400> 9159
gaggatgact cgtacgatga cgagatgctg tcagccattg aggggctcag ctccacgagg    60
tgaggtctga gacctctgtc cacccccctc tcctctcccc ctcggatagg ggtcccctat   120
atgggcaggc ccatctcata ccccatgcct ggtggcccag ccttgttcct tccccctgcc   180
tgctgccacc tcctgaggga atggacccct tcccagcccc catctcaccg cagctgcccc   240
cgcccacagg ccctgctgct ccaagtccga tgacttctac acctttgggt ccatcttcct   300
ggagaagggc tttgagcgcg aggtgagggc ccccagcagc ctcctccgca gagggacggg   360
gtctccaggc ctggggtagg gtgggggacg caggtcatgg ggcagcctgc gttcccaaga   420
ccggctaggg gaggggcact gagaatccac agctgctcct gggcgggggg caggggcggg   480
gccagtgcag caccagcctg gctctctcct gtcggcttca ttccatgacc caaatgcacc   540
atcagagatt tgcctccatg ggtctgcaag acttttgctc cgtccagtgc caaagcctta   600
gcagatcctg gcatggatgc ctcaggctga tgggcaccgg ccttgcaatg agacgagaac   660
ccaaagctca gttatcagtg tcctgtcttg ctgctatgag ctttttgtac tgataacgac   720
catttcttta ctgagcgcct tctgggttct ggcagcatcc tcggcaccca cattatataa   780
tttaaccgtc acaacggcca gcccaggggt gctgctatac cacttcacag agaggaaact   840
ggctctcaga ggcttcagag cctgtcccca gcttcaggtg tggctccctg agttgggggc   900
ttcctaggtg aggtcacgag gaaacctgct ggccaagtga cctggcaggg tgtggccagt   960
gtggccaggg ccgccgagcc tgctttcctt ccctgcagca ggaacccttc tggggctgtg  1020
atcctgcgat ggtgcctggg tgggagtggg ggtggggggc gggatggtct ccctacctgc  1080
```

```
cagcttcttg gtttgaggtg aggacagccc cggaagctca gacttggctc ctgtccatgt     1140
acttggggcc atgagctctg cagggacctt ggaaagagag agacgggtgg tgtagggcag     1200
gggaaggcat tgtcttcaaa caggaaaaag ctgagaatgg aaacaggcga aacttaccaa     1260
gtgtaacatc acctggaact gaaggagggt gggaaggttt taattatttt aaaaatagag     1320
atggggactc actatgttgc ccaggctggt ctcaaactac tgggctcaag tgaacctcct     1380
tcctcggctc ccaaagtgct gggattacaa gcgtgagcca ctgtcccagc agggaggtgt     1440
ttttttttaaa gctgattcac tggaggcagg gtgggcaagt ggcactgctg gtggccaccc     1500
ctcacagtcc ctgctgcccc cagtaccgcc tggcacccat ccccgggcc cgccacgact     1560
ttgcctgcgc cagcctgatc ttcgtctgca tcctgctcgt ccatgtcctg ctcatgccca     1620
ggtcagttgc agggagggggt gtggggggtcc ggcctgctgg gatccaggct ggaaggtgac     1680
tatgaacctg caaggagctg tgtgatttgg gctggaaggg gtcggctgct ggggtcctag     1740
caactggacc aggggctgtg gcagcacacc ttgagttacc aacacttctt tttaatagaa     1800
tgtgtgtttt ctgccacagg cctccctact ccctaacgtc tctctcctca gccacctgtc     1860
atatgtgtgg cctgcatgca ttttggttga cagcccttgc cttaggtgtt tggagtgcta     1920
ggaggataga ctctgaaaac tgtaggcgcc atcctttttc tcttatatat agggaaattg     1980
gggcacagag gattaatgat ttatccaaaa ctcactgaga ttcatgcttc tggctctagg     2040
gccctgctgg tggggtatag ggatgagggt gaagtcagag ggaagggga tctaaggtca     2100
gctacttggt gctttctaga agagcagtta ggccgaagca tcgaccagga ttgtggtttt     2160
ggctatgctt actaaagaca taatagggag gctgtgcgtg gtgactcacg cctgtaatcc     2220
cagcactttg ggaggctgcg gggcgaatca ctcgaggtca ggggtttgag accagcctgg     2280
ccaacatggt gaaaccccgt ctctaccaaa aatacaaaaa ttagctgggc gtggtggctg     2340
gcgcctgtaa tcccagctac tcgggaggct gaggcaggag aatggtgtga acctgggagg     2400
cggaggttgc agtgagccga gatcatgcca ctgcactcca gcctgggtga cagagtgaga     2460
ctccatctca aaaaaaaaaa aaaaaaaaaa cgaagaaaga tgtaataggg aatgcgtttt     2520
tacagttttt tctgagtcta aaggctgcag agacattgct catttcttat acacttggac     2580
caaaaagagt gatatggtct tgacctcaat cttcataatc tagctgggcc ctgtgtattg     2640
cccatggggc agctgggcca cagttttcac aggtcccctt tgctgtgggc agaataccag     2700
gtagggtggg gacaggtggc tgtgagccag aggattggtg ggggcggtgg tcctgggcag     2760
aaggccctag gcagaactga ggttcttccc tcctctccag gacggcggca ctgggtgtgt     2820
ccttcgggct ggtggcctgt gtactggggc tggtgctggg cctgtgcttt gccaccaagt     2880
tctc                                                                  2884


<210> 9160
<211> 136
<212> DNA
<213> Homo sapiens

<400> 9160
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga ttgtgccact      60
gcactccagc ctgggcgaca gagtgagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa     120
aaaaaaaaaa aaaaaa                                                     136


<210> 9161
<211> 202
<212> DNA
<213> Homo sapiens

<400> 9161
ctactaaaaa tacaaaaaat tagccgggcg tggtagcggg cgcctgtagt cccagctact      60
cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagccgag     120
atcgcgccac tgcactccag cctgagtgac agagcgagac tccgtctcaa aaaaaaaaa     180
aaaaaaaaag gttaatatgt aa                                              202


<210> 9162
<211> 153
<212> DNA
<213> Homo sapiens
```

<400> 9162

```
gggcgtggtg gcgggcgcct gtagtcccag ctactcggga ggctgaggca ggagaatggc      60
gtgaacccgg gaggcggagc ttgcagtgag ctgagatcac cccactgcac tccagcctgg     120
gcgacagagt gagactctgt ctcaaaaaaa aaa                                   153
```


<210> 9163
<211> 150
<212> DNA
<213> Homo sapiens

<400> 9163

```
ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg aacccgggag      60
gcggagcttg cagtgagctg agatcgcgcc actgcactcc agcctgggcg acagagcgag     120
actctgtctc aaaaaaaaaa aagaattggc                                      150
```


<210> 9164
<211> 142
<212> DNA
<213> Homo sapiens

<400> 9164

```
cccagctact caggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca      60
gtgagccgag atcccgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa     120
aaaaaaaaaa aaaaaaaatg ga                                              142
```


<210> 9165
<211> 181
<212> DNA
<213> Homo sapiens

<400> 9165

```
caaaagttag ccgggcgtag tggcgggcgc ctgtggtccc agctactcgg gaggctgagg      60
caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc gcgccactgc     120
actccagcct gggtgacaga gcgagactcc gtctcaaaaa aaaaaaaaaa aaaaaagat      180
t                                                                     181
```


<210> 9166
<211> 147
<212> DNA
<213> Homo sapiens

<400> 9166

```
acgcctgtaa gcccagctac tcaggaggct gaggcaggag aatcgcttga acccgggagg      60
cggaggttgc agtgagctga gatcgtgcca ctgcactcca gcctgggtga cagagtgaga     120
ctccatctca aaaataaaa ataaaaa                                          147
```


<210> 9167
<211> 166
<212> DNA
<213> Homo sapiens

<400> 9167

```
ggcgtgcgcc tgtagtccca gctactcggg aggctgaggc aggagaatgg cgtgaacccg      60
ggaggcggag cttgcagtga gccgagatcg tgccactgca ctccagcctg ggtgacagag     120
caagactccg tctcaaaaaa aaaaaacaaa aaaaacatgt aggcag                    166
```

<210> 9168
<211> 268
<212> DNA
<213> Homo sapiens

<400> 9168
cggccgaatt ctgccctccg ctaacgagct atagctttgt ggaaatgggc gagtggcgtg   60
cccttgtgag cctcagggcc gcatctgtaa aatgggcata actgtcatgc ctgtctttaa   120
gaacagcctt gggggtaaat gagtggaact catggaaaga tctcagccca caaccttcca   180
cagaacaggc gcttctcaca cagtaagtag caggagtgca gaggctgcag gcatgaatcc   240
agccagactg cctgggttca agtcccag   268

<210> 9169
<211> 368
<212> DNA
<213> Homo sapiens

<400> 9169
ggcatgggca aggacttcat gtctaaaacg ccaaaagcaa tggcaacaaa agacaaaatt   60
gacaaatggg atctaattaa actaaagagc ttctgcacag caaaagagtc taccatcaga   120
gtgaacaggc aacctataca atgggagaaa aattttgcaa tctactcatc tgacaaaggg   180
ctaatatcca gaatctacag tgaactcaaa caaatttaca agaaaaaaac aaacaacccc   240
atcaaaaagt gggcaaagta tatgaacaga cacttctcaa aagaagacat ttatgcagct   300
aaaagacaca tgaaaaaatg cccatcatca ctggccatca gagaaatgca aatcaaaacc   360
acaatgag   368

<210> 9170
<211> 2893
<212> DNA
<213> Homo sapiens

<400> 9170
caggttaccg aggagacctg caccatcctc cagggcctcg ggtactcttg tgaatgccgt   60
ggcctgatca acgtcaaagg caaaggcgag ctgaggactt actttgtctg tacggacact   120
gccaagtttc aggggctggg gctgaactga gggctcctgc tggattccga aaaggccggg   180
aagccagtct ccttccctga agcaagccca ggagaagact ctccgcccca cgccaatccc   240
aaaggcatgc agatggctgt gcatgttggc ttctttggac ctgcactgga ggatttctca   300
gacacatgca ccagattctg gctcgaagca gccactgagc cataatgcgc aggggaggcc   360
agaagctctg tgcctggtct gtaacagttt ccaggccagc tggagaatgt tcactggttc   420
ggggctgact ttgagatctt tgttccctga ggtgccaggc aggcaacttt agcacatgat   480
gaaaacagac ttccacctca gtggcctgtg ggcacgcaca agtgaggtct gtttttctag   540
acaccaaggg ggagtaagct gagctgtcta gcacggattg gagactccct ctccctggtg   600
ggcctggcaa tgacagcatt ctcacagag gcattctggt aaatgaagct gaaggggtg   660
ttttacatct gtaaacggtt tcaaacaggt agagagaaaa acaccacaat taacactgtt   720
acttttgcc ttgtctggca tgtttgtttt aaatgaatac attaatgggg tttttatcct   780
tttgaatgac ttttcagaca ctagacataa atctcttccc tccagtgtat gctctgcctt   840
tttaaccact gacatgtaag gaggactact gtctagcatc agcttatggg gtcagctggc   900
tgtgggggata gagtcctgag gaatgtggtc acagcaagaa gacggtgagc agcagagctt   960
tgcctttgaa tgaggcagct tgtgaggcaa gcattctgga gagaggtgct ttgaaagtaa   1020
ggtgcggcct ttcacctctt ccttgattac tcacacatct ttgcgttctc ccctgccgtc   1080
cttcaactgt atcttacttt tcttaccaga aaggaatgga gtctgtttag agacaacttg   1140
gacaacctgt gagtgcatct cttctttcct ttagtcttca cagctaactc tggagagctt   1200
caaaactaga aggatctact ccgcatgggt gcatgcagag gctcctggat ctgggaagcc   1260
cgccccctca caaatgctga gccgttcttg ctctgaaact gcgtgagtca aggcaaatgc   1320
aaaaagccag gttttgggga tgtgtcttac tgtgcttcaa cttcccaagg aattgaaagt   1380
caacctaact gtaacaacag ggtgagaaat gaccaaactg cccgtgactt tttctgaatg   1440
gacttcataa ccggaagact taaccggtgg cctcatcacc agagcatcgc caggatttct   1500
aatgcactca gtttccctac atagcaggga ttcttagcta ggtgtcccca tgaaccccgt   1560

```
aaagttctac acaaagtctt gcatacagga gcctttacaa gatgattata cagggttgca    1620
gattggggtga ctgaccagac ttgttggggt cctgggatga gttgccccgg gctgcaaatt    1680
aagagtacag ctaagtgcgg gggtggcggt ggagggaacg aaaattgaac ctgtctgcct    1740
gtgctgtgtc gtgtggcttt atcagcccga ggaagggcag gtgtattcta atttgcacaa    1800
aggtgctggg tagactagtg gcagctctca tgtgctgcac ataagtggaa tcagtatgaa    1860
tagaagaact tgctgtataa aggaatttca tggcaacaat gctggtaagg gcaattagcc    1920
tcgcttaagt tgcctttttt acacaccaaa acttttaca tgaagggctg gtttcacatg    1980
aatactatac tgaaatctgt gctctcaaga tctagcagtg accagggctg cccggcgggg    2040
gctctcctgg caagtcagga aggtttctgt tgctaatata acatagaaac acattagtgc    2100
actgggcctc tctgaggtca gcatatttgt actcttggaa tatttgtttt tttcttcagt    2160
aacaacagaa accccagttg ggagtttaac aaataactga ctaccactca ctcatgcatt    2220
tttatttcca attaaagcaa agcactgtgc tgtgctcaga taataatagt ttgtaagtaa    2280
aagttttttag ttttcagtgt tcaggttata gaatataact gaccataaaa attacctgca    2340
ggtattttct ttttatgaac ttgttttttaa attaccaagt aattactggt gtcattttgt    2400
tttatgacag acacacgtat ctaacaaaca aacaaacagt gaccttctcc atgggtcaag    2460
gacttcctta caatttctcc tgagttaact tttgtgaaaa taatacctaa ggttttctgg    2520
cttattgagg aaatttccta acaaacaaac aaacaaacaa acagaagaga agatcattaa    2580
ccactgtata ctttgtgtat ataataggtc agtgtaaaga aatatgattt gaggtggtgc    2640
atgcaagtaa ctagggttta ttctatataa tgaatattta tagatctgta acatttgttt    2700
caaaatgctg tttcattttt ataaagtacc agtgtttagc tgctttttat acattaaaatt    2760
agcaatttga aaaactcaaa tatctgaagg tattttattt tcgtggtcct catgaactca    2820
ctagagatta aaagtagact caaacaactt gaaaatttga ctctttttagc ataagatttt    2880
aagtctttttc agg                                                       2893
```

```
<210> 9171
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 9171
agcagctctt gcagtggggtg ggcgacttcg tgctgtacct gctggccagc ctacccaacc    60
aggtgcgcca tgctctcccc taaggccccg cccccccacct gggccccccat ctcatcagga    120
ccccgcttcc ctgcccctgc ccctcaaaac cacctcagcc ccgcccctag ttggagtccc    180
gccctactt ggagtcccgc ccctacttgg agtcccgccc ctgcttggag tcccacctca    240
gccccgcccc tggttggagt cccaccccta cttggagtcc cacttcctga gtctgtctct    300
tcttaaaccc ccacttccta gccctgcccc acttcctagc cctgccccac ttcctagccc    360
tgccccacct cggagccctg ccccatctcg gagccctgcc caccttcggga gccctcccccc    420
acctcggagc cctcccccac ctcggagccc tgccccacct cggagccctg ccccacctcg    480
gagccctgcc caccttcggga gccctcccccc acctcggagc cctcccccac ctcggagccc    540
tgccccacct cggagccctc ccccacctcg gagccctcct ctccatgaag cctctgctgt    600
aagaagcctt tccttggcca cacccttcct gcccattctc aaagccccgc ctcccaggcc    660
ctgctccttc tcagccccac ccctacacga aggccggttc gccttgctcc tgctgctgct    720
gcccccaccc cttaccctcc ccagctccct gcgcctgggg tgggcggcct tgaaatcaag    780
tctccatcca cacctccacc ttcagttttg cggcttgtgc gcccctgacc agggctccaa    840
cctcgccccc accccccgc cggtacactc tgtcctgccc cagctgtgat ttcttctgcc    900
ccacccaccc ggcttcatcc tgccctgggg cccgcccttc tccaccgcgc ccatcacgga    960
cggtttgaag tccctctctt ctttttgtgg ggctttaggc tgccaggggc cacccctggg    1020
gcctcccctt ccctggtcct ctcagctccc agtacagtca ccaggggccc gggcccgcag    1080
ctgtaggagg gggcggctgc tcctccacgt gcaggtgggg atattggcct cagccagagc    1140
ctcgtcttag tcttgtggac tctcagggat gggacgactc tgcaaatggg gctgtcctgg    1200
gccctgcagg gctctgagca gcgtccccgg catccaccca ctcggtgcca gaagcacccc    1260
agtcctgacc accacaaatg tcccagaccc tgcccattgc ccccccggtcg gggttccacc    1320
gaccccaaga cacttcatcc catcgccatc tgcccccgc cgcccccagcc acaccgatgc    1380
ctctttcggg cagggttccc tgctgaggcc gggccacagc tttctgcggg acggcacctc    1440
gctgggcatg cttcgggaat tgatggtggt catccgcatc tggggccttc tgaagcccag    1500
ctgcctgccc gtgtatacgg ccacctagga tacccaggac agcatgtc                 1548
```

```
<210> 9172
<211> 4704
```

<212> DNA
<213> Homo sapiens

<400> 9172
```
tattattata ctttaagttt cagggtacat gtgcacaatg tgcaggtttg ttacacatgt      60
atacatgtgc catgttggtg tgctgcaccc atcaactcgt catttagcat tagatatatc     120
tcctaatgct atccctcccc actcccccta ccccacaaca gtccccggtg tgtgatgttc     180
cccttcctgt gtccatgtgt tctcattgtt caattctcat ctatgagtga gaacatgtgc     240
tgtttggttt tttgtccttg caatagtttg ctgagaatga tggtttccag cttcatccat     300
gtccctacaa aggacatgaa ctcatccttt tttatggctg catagtattc catggtgtat     360
atgtgccaca ttttcttaat ccagtctatc attgttggac atttcggttg gttccaagtc     420
tctgctattg tgaatagtgc cgcaataaac atacatgtgc atgtgtcttt atagcagcat     480
gatttacaat cctttgggta tatacccagt aatgggatgg ctgggtcaaa tggtatttct     540
agttctagat ccctgaggaa tcgccacacc gacttccaca atggttgaac tagtttacag     600
tcccaccaac agtgtaaaag tgttcctatt tctccacatc ctctcagcac ctgttgtttc     660
ctgacttttt aatgatctcc attctaactg ttgtgagatg gtatctcatt gtggttttga     720
tttgcatttc tgatgatggc cagtgatgat gagcattttt tcatgtgttt tttggctgca     780
taaatgtctt cttctgagaa gtatctgttc atatcctttg cccactttt gatggggttg     840
tttgtttttt tcttgtaaat ttgtttgagt tcattgtaga ttctggatat tagccctttg     900
tcagatgagt aggttgcaaa aactttctcc cattctgtag gttgcctgtt cactctgatg     960
gtggtttctt ttgctgtgca gaagctcttc agtttaatta gatcccattt gtcaattttg    1020
gcttttgttg ccattgcttt tggtgtttta gacatgaagt cttacccat gcctatgtcc    1080
tgaatggtat tgcctaggtt ttcttctagg gtttttatgg ttttaggtct aacatgtaag    1140
tctttaatcc atcttgaatt aattttgta taaggtgtaa ggaagggatc cagtttcagc    1200
tttctacata tggctagcag gttttcccag caccatttat taaatagga atcctttccc    1260
cattgcttgt ttttgtcagg tttgtcaaag atcagatagt tgtagatatg tgacattatt    1320
tctgagggct ctgttctgtt ccattggtct atatctctgt tttggtacca gtaccatgct    1380
gttttggtta ccatagcctt gtagtatagt ttgaagtcag gtagtgtgat gcctccagct    1440
ttgttctttt ggcttaggat tgacttggca atgtgggctc tttttttggtt ccatatgaac    1500
tttaaagtag ttttttccaa ttctgtgaag aaagtcattg gtagcttgat gggaatggca    1560
ctgaatcttt aaatgacctt gggcagtatg gccattttca cgatattgat tcttcctacc    1620
catgagcatg gaatgttctt ccatttgttt gtatccccttt ttatttcatt gagcagtggt    1680
ttgtagttct ccttgaagag gtccttcaca tcccttgtaa gttggattcc taggtatttt    1740
attctctttg aagcaattgt gaatgggagt tcactcatga tttggctctc tgtttgtctg    1800
ttattggtgt ataagaatgc ttgtgatttt tgcacattga ttttgtatcc tgagactttg    1860
ctgaagttgc ttatcagctt aaggagattt gggctgaga tgatggggtt ttctagatat    1920
acaatcatgt catctgcaaa cagggacaat ttgacttctt cttttcgtaa ttgaatgccc    1980
tttatttcct tctcctgctt gattgccctg gccagaactt ccacactatg ttgaatagga    2040
gtggtgagag agggcatccc tgtcttgtgc cagttttcaa agggaatgct tccagttttt    2100
gcccattcag tatgatattg gctgtgggtt tgtcatagct agctcttatt attttgagat    2160
acatcacatc aatacctaat ttattgagag ttttagcat gaagcattgt tgaattttgt    2220
caaaggcttt ttctgcatcc attgagataa tcatgtggtt tttgtctttg gttctgttta    2280
tatgctggat tacgtttatt gattttcgta tgttgaacca gccttgcatc ccagggagga    2340
agcccactag atcatggtgg ataaactttt tgatgtgctg ctgtatttgg tttgccagta    2400
ttttattgag gatttttgca tcaatgttca tcaaggatat tggtctaaaa ttctcttttt    2460
tggttgtgtc tctgccaggc tttggtatca ggatgattct ggccacataa aatgagttag    2520
ggaggattcc ctctttttct attgattgga atagtttcag aaggaatggt accagctcct    2580
ccttgtacct ctggtagaat tcggctgtga atccatctgt tcctggactt tttttggttg    2640
gtaagctatt gattatttcc tcaatttcag tgcctgttat tggtatattc agagattcaa    2700
cttcttcctg gtttagtctt gggaggatgt atgtgtcaag gaatttatcc atttcttcta    2760
gattttgtag tttatttgca tagaggtgtt tatagtattc tctgatggta gtttgtattt    2820
ctgtgggatc ggtggtgata tccccttat cattttttat tgcgtctatt tgattcttct    2880
ctcttttctt ctttattagt cttgctgtct atcaattttg ttgatctttt caaaaaacca    2940
gctcctgaat tcattaattt tttgaagggt tttttgtgtc tctatttcct tcagttcttc    3000
tctgatctta gttatttctt gccttctgct agcttttgaa tgtgtttgct cttgcttctc    3060
tagttctttt aattgtgatg ttagggtgtc aattttagat ctttcctgct ttctcttttg    3120
ggcatttagt gctataaatt tccctctaca cactgctttg aatgtgtccc agagattctg    3180
gtatgttgtc tttgttctca ttggtttcaa agaacacctt tatttctgcc ttcatttcgt    3240
tatgtaccca gcagtcattc aggagcaggt tgttcagttt ccatgtagtt gagtggtttt    3300
gagtgagttt cttaatcctg agttctagtt tgattgcact gtggtctgag agacagtttg    3360
ttataatttc tgttctttga catttgctga ggagtgcttt acttccaact atgtcaattt    3420
```

```
tggaataggt gtggtgtggt gctgaaaaga atgtatattc tgttgatttg gggtggagag    3480
ttctgtagat gtctattagt tccgcttggt ttagagctga gttcaattcc tgggtatcct    3540
tgttaacttt ctgtcttgtt gatctgtcta atgttgacag tggggtgtta aagtctctga    3600
ttattattgt gtaggagtct aagtctcttt gtagttcact aaggacttgc tttatgaatc    3660
tgggtgctcc tgtattgggt gcatatatat ttaggacagt ttgcttttct tgttgaattg    3720
atccctttac cattatgtaa tggccttctt tgtctctttt gatctttgtt ggtttaaagt    3780
ctgttttatc agagactagg attgcaatcc ctgccttttt ctgtttccca tttgcttggt    3840
agatcttcct ccatcccttt attttgagcc tatgtgtgtg tctgcacgtg agatgggttt    3900
cctgaataca gcacactgat gggtcttgac tctttatcca atttgccagt ctgtgtcttt    3960
taattggagc atttagccta tttacattca aagttagtat tgttatatgt gaatttgatc    4020
ctgtcattat tatgtcagtt ggttattttg ctcattagtt gatgcagttt cttcctagcc    4080
tcgatggtct ttacaatttg gcatgttttt gcagtggctg gtactggttg ttcctttcca    4140
tgtttagtgc ttcttccttc aggagctctt ttaggacagg cctggtggtg acaaaatctc    4200
tcagcatttg cttgtctgta aagtatttta tttctccttc acttatgaag cttagtttgg    4260
ctggatatga aattctgggt tgaaaattct tttctttaag aatgttgaat attgcccccc    4320
actctcttct ggcttgtaga gtttctgcca agagatcagc tgttagtctg atgtgcttcc    4380
ctttgtgggt aacccgacct ttctctctgg ctgcccttaa catttttttcc ttcatttcaa    4440
ctttggtgaa tctggcaatt atgtgtcttg gagttgctct tctcgaggat tatctctgtg    4500
gtgttctctg tatttcctga atttgaatgt tggcctgcct tgctagattg gggaagttct    4560
cctggataat atcctgcaga gtgttttcca acttggttcc attctccccg tcactttcag    4620
gtacaccaaa cagacgtagg tttggtcttt tcacatagtc ccatatttct tggaggcttt    4680
gtttcttttt attctttttt ctct                                          4704
```

```
gcctttgatt ccttccctct gaagacagac aaaatcctga cttaggcagt attttttaaa      60
ataccaaggg tctcggaaac ctagggtttt ataagtaaga ggaacagatc aaattctaaa     120
tctcctttgt ccacattgtc attctccagc ttgttgttct tttcagtggt gaggtaagaa     180
tataactcct acttaatgtt cctgttcctt aggtgaaaca ctaccacctt ttgttcaaaa     240
gttagatgct ggggttgttg ctgttgttgt tttcttcttt tcttcctta cttttttagat     300
tttgatggag acgtggtagg aagtctgggc tgggaaatga ggtgaaaaag aaaagcaatt     360
agtttgtctt tatacaaaat aaaaccttct aaaaaacctt attatcacaa aaaagagctc     420
tacaaatcta gatagttgtt ttgaagaaga gaagagaatt gtgaaaaaca tgtataattt     480
gggagggctg ggcacagtgg cttatgcctg taatcccagc actttgggat gctgaggcag     540
gcagatcacc tgagatcagg agtttgagac cagcctggcc aacataatga aaccctgtct     600
ctactaaaaa tacaaaacat tagctgggtg tggtaacaca cgtctgtggt ctcagctact     660
ttggaggctg aggcacgaga atcgcttgaa cccaggaggc agaggttgca gttagctgag     720
attgtgccac tgcactccag ctttggtgat agaacgagat tccatctcaa agctaaacaa     780
caacaacaac aacaataaca acaacaaaaa catgtataac tgggaaaaaa ctgaaagaga     840
atgcaggatc ataaaaatat agcaaacaaa gtgagtggga tttaaaatta gtggaataag     900
aaataatggg taacaatgaa gaacataatt taggtaatag tatagtatct tgggagccct     960
cctggaagta tctagttatg gacagtgagc agcagaaaca ggatgtaact caattcagca    1020
tacttgatgg ttgtggtaac cctagaaaat gactccagga aataggtgag aatccaatca    1080
gattgagagg ctaatgttca tgacaggggt gccctagcag acaggcaaag ctgaatagaa    1140
attcaggagg agaggaattt tggctattta gtaaaattat gagcagttgg tcataggcaa    1200
attttatgag taggtagccc ttctgaagtc ttaggcatat aattaaccta ggttggaatt    1260
ataattagac atgaaagttt aaacttttttt atctgaaccg agatgcaaaa gtaaattggt    1320
tctgtgttct ggagaattgt aaaagaattc cttaattcct tagcaaaatt tggaagtcag    1380
tatcaagtgg tgaggatagg aaagttgaag agactgtgga ccaggcaaga ccttatcagt    1440
tgatttagga agcagcagtg acagaggcca gacaggtaac aagagaaaag agaa          1494
```

<400> 9174
```
gcggccgccg aggggccggcg actccccgggg caccgggcgg ctcctggccg cgggctctgc      60
gtcttccccg cgggcgccag gcggctctcg gcgggctggc cggttccacg ccgccagcca     120
gccccgtgtg gggacttcgg tctagtattt ggacccgagg agataattct gtgtggaaaa     180
ttctctccct tcggttggaa acagtaacaa actgaaacg gatgaggtgt tatggacgtg      240
cttggaaatg caagaaacct tcagattacg agctgttgac gggaccagtt gtatttcacg     300
tttttcgaat taagctcaga atcagttttc agaatgacat gtgatgcgtg gtgcgtggtg     360
tgtgtgcctg tgtgtgtgta tggatataat tcattcattt ttgtggcgtc agaaaggtta     420
tgtcgagcgt tgtagcggct tcttaattta cattcacggc atacaactga agaggagcca     480
ttatttattt tttttcctag catttgctgc gactacacac tgccggagcg tttggaaatg     540
ttgtttgctg ttaccctgta tttgtctata aaattcttac tgtagggaat ggccaagtgg     600
accatcagtt cgtcctgaga tcttctcatg tctctcacgt ctttgaaaat ggcctgtgaa     660
cagactgcat catatgtagg atgtctggca aaatagtgta cagcgttctt ttctcaaatg     720
agaggaaatg tgtacctttt cgccgcgttg tgacaatgta aatgttaaga attagtctaa     780
agatgaaaat tctttggcca aaacaagata agccttatcg atatgaaaac tggaaaacat     840
cacatgggac tggaaatcct gtgagtgggt gctcatgacg gaaaccctga cagaccttgg     900
attccagcat cgctggtgaa aatcagacct tatcatggat aagggttaag atgtaaggtg     960
tctcacccag acgccatctg ttccagctgt caatgcagaa gccaggaaag gagagagagc    1020
tggccaggga gaattccagc tttttttttt tttttttttt tttttttttg agacattcat    1080
gtgaatttct ctgcgagggg aaagaagacc aattattttc cttggatgct gtcccttctt    1140
ttggaattaa taagatggct tcactcagtg agaggctgta aagacatttc actggaaaca    1200
ggcagtaaca gtggccagtt gtttctgtta ataccatcaa aatatcccta ctcttgtttg    1260
tgccttgaag aaagtccttc atttaactga gacatctgag cctgcgttgc ggattctgat    1320
tctctaaata ctcctgcaag aatcccttta atttttcact gtgcaactca agaaggacct    1380
ttctagggta ttgtcaggat acgtatgcta atgatattgt caggttaggt gagaatgatt    1440
gatcactccc ttaaaatcct tttttatgat gttaaagctg tactttaaga aagataaaac    1500
tgccactgtg gcgttgcaag tctgagctag ctcaagcaaa caaaggaaat tgcgttaaat    1560
ttgcccaact ctattttctc atcttcatat agcaagactc tccaaacagc aagtgatcta    1620
acctatcaag tattatgcaa tagctgaatt tccttgcaat ggtcagttta aagaactgtt    1680
aacttagcag aggcgacgtc tcgtggccaa ggcccttagg gtccactcca tggaatcagg    1740
acccccttgct gctgctttgc gagtgttcat ggaggaagaa aaatcacttg gtgttctttt    1800
tttgcatgga agagtcataa taactgactt cagatacaga gaaagtggga agagtgagaa    1860
agaaggaggt gaggccagag gatttggaag gctaccagag agaagcagcc gaggcctgat    1920
tgtggaaatg atgcttagac ttgctttcag caggagtgat gaagccagaa tgagggaggc    1980
ccagacgccc gggagaggta caggggatag gtgccatgtg gtttgcacca ccgcagcagg    2040
ctttgggtcc caaagacgcg aatggaaata gaagaaaatg cagttttaaa tagaaaagaa    2100
aaaaaaaacc gagaaaatgt ta                                            2122
```

<210> 9175
<211> 669
<212> DNA
<213> Homo sapiens

<400> 9175
```
ggcccctgtg cacagtgaag ggacatgcca gaaaccagca gatacttgac tgagacagac      60
caggacagga gcttgtggca ggaaggataa ggaaaaatgc aaatctacca tcctgccctc     120
agggtgctaa cccttcgggg gagaatactt tctcccacca ggaagaaacc agaaagtaaa     180
aatgtaggat gaaatgaatt agtggattgt gtagaattct ggaagcgtgg tgggaatcca     240
ccataaggga aagagaaagt cttctgggaa gcggcgttga gttgaggccc agtgtcagga     300
aagctctggt atagtggggc catctggtcc ctcttacagg gcccctccc actttgtttt     360
ggtaagatgg gatctgacgg cttgccatcc tgtcactcct tgccagtaga tgcagtgctg     420
gccatgctgc tggtcattgg gtttccagtt gggaagttgc atgtgctggc ctttggctct     480
tgccaggcag ggcctttgt gactgggagc tcatgtgggt catgcatact gtactgtgaa     540
gggcatggtc tgtggagggg aacagagcag caggccctaa cctgggtggc accactttgc     600
tgtccctacc attttttcatt gcaggttgaa agtctccaaa gtggcagggg aagggggtgta     660
aatgttaaa                                                            669
```

<210> 9176

6718

<400> 9176

```
gcgcgcaggc ggctggctct gggcgcgcgc cagcaaatcc actcctggag cccgcggacc     60
ccgagcacgc gcctgacagc ccctgctggc ccggcgcgcg gcgtcgccag gccagctatg    120
gcccccgacc cggtggccgc cgagaccgcg gctcagggac ctaccccgcg ctacttcacc    180
tgggacgagg tggcccagcg ctcagggtgc gaggagcggt ggctagtgat cgaccgtaag    240
gtgtacaaca tcagcgagtt cacccgccgg catccagggg gctcccgggt catcagccac    300
tacgccgggc aggatgccac ggtgagcgca gccaggcggg ggcacaggag agggcgggac    360
cggaggctga gtgcagggga gacagagtta cgcactccga gccaaacacc gactaattcg    420
gaggaaagcc cggaggcgcc tgatcatacc tgttgcccgg tgattgggtg tcctgcggat    480
gcgggatgaa aaggcgggag agaggcctgg agaagtggag tctggggagt ggggatggag    540
gccaacaaca cgcacacaca aacaaagggt cccgcctccc tgccgtgcat tccatctgca    600
gccccgagcc tcaggtctct gggcggggac agaaccccga gctgggtagg ctaggaggga    660
ggagagcaag gatgcaggcc gcctggggag ggaggggtc agtggccagg ggagggagtc    720
acatcctgtc tcgatggcta ggagaggcag cgcagccgcg tctggaccta ggtgccggtc    780
tccactcgcc agcaggagcg gagagggagc aggaaaggag cccattctcg aggatggggc    840
tgaaacggga agcttgggga gaccgctgcc ttggggaccc ctgcgtcgtg tgaagactgg    900
aggacgcgga agggacagcg ctggccgggg agggcaagcg gccgctggcg tacataaggg    960
attgggaatg gcatacactt agcgaggacc cccagagctg ttctcgaatc gccggggagg   1020
ccactgagcc gcaggccagc gaggtcttca gctattccgc ggagcggacc gctgtttacg   1080
ctctggggcg gtaggccctt cgcggggtcc tgtcccttct tcccttggtc tcactgcggg   1140
gtcggcgcgc gccccagccc caggcctgct gcttcccttt ctagaccaca gccctcagag   1200
ctaaggcccc ggcgcctctc tgctgggttg gagtcctggg gactcagtcc tagggactcg   1260
aaagtcgggg cgttcccttc accgcgtttc ccccttggcg gccagaatgg cgtcccctcc   1320
ccttgcatcc ccctctgatc ccgtgccctg cagcgtgatg ccctccactg tccctatcca   1380
ctaccctggc gtcccagagt gtgccgcggg tcaccaggtt cccataacgt cgcagcagag   1440
cttagacgct gcgggcgaa gacccgcccc accctctgac gcgaccagcc tagtgggcga   1500
ggccagagct tgcgcgggtc aaccagagtg accactcggg agccctgact gcggccaagg   1560
gcgcaggcgt gtcccggcgc atgcgcagac gaaacaggca ccaacgctgg agcttcccgc   1620
agtgtgattt ggggccggga atgccgcggc ggggacggcg attggtccgt atgtgtggtg   1680
ccaccggccg ccggctccgc cccggccccc gccccacacg ccgcatcact tacagggccc   1740
ggggctgccg gacctgccaa cgtgaatctt atcgccatgg accttacctt gcacaaccca   1800
aagtagctgc cttggggcag ggggtggcca gagtgcttag ggaaatgtgg agccctaccc   1860
agaacaacgg tggagggaaa gggaagaaac gcagaagtgc cccagttcgg acgtagggaa   1920
gtcttcctct tcgtggtttt tggagaaccc tagctaagag aggaaaggga cttattgaaa   1980
gacccgcaag aagggacgga agtctcatag ccctgagagg tgaagccagc tggagttgat   2040
gggtcgaatg gggacctaga gaacttttct gtatctagag gtttgtaaaa tgcaccaatc   2100
agtgctctgt aaaaacgcac caattggcgc tctgtagcta gctagaggtt tgtaaaatga   2160
gccaatcagc aggacgtggg cagggacaac taagacaata aaagctggcc accccagcca   2220
gctgctgcaa cccgctccag ttccttaca ggctgtggaa gcattgttct tttgctcgtc   2280
acactaaacc ttgctgctgc tcattctttg ggtctgcaaa gagtgttatt cctttaagag   2340
ctataacagc gggaaggtcc acggctccat tcttgaagtc agtgagacca tacccgccgg   2400
aaggaaccaa cgcccgacac agccccaccc atctctcctg tttctcacct atactgaaat   2460
tcttgggcaa aagctgtctg tggacacacc caggggaaag gccagcccag gcaggtgttt   2520
cttagtggtt cccctcagcc aatgcttccc attccttgat gcatccttct aactagagca   2580
gatactcggt gatcttaaac tgtggacacc tgggagcacc ctcaaaaggc agctgggcct   2640
agggagatgg cctgtgcttc tgtgtcagga gttggttcct tcaggtgggc tcgtggtctc   2700
gctgacgtca agaatgaagc catgaacctt cgcggtgagt gttacagctc ttacaggtgg   2760
cgtggaccca aagagtgagc agcagcaaga tttattgtga agagcaaaga acaaagcttc   2820
cacagcgtgg aagggtaccc gagcaggttg ccgctgctgg acgttggggg gtgtgagggg   2880
gagcagcctt ttttttttttt ttttttttttt gagacggagt ctccctgtcg cccaggctgg   2940
agtgcagtgg cgcgatctcg gctcactgca ggctccgccc tccccggggg ttcacgccat   3000
tctcctgcct cagcctcccg agtagctggg actacaggcg cccgctacct cgcccggcta   3060
attttttgta tttttagtag agacggggtt tcactgtgtt agccaggatg gtctcgatct   3120
cctgacctcg tgatccaccc gccttggcct cccaaagtgc tgggattaca ggcgtgagcc   3180
accgcgccg gccgggagca gcttttattc ccttatttgt ccctgcccat gtcctgctga   3240
tttgtccatt ttatagagca ctgattggtc cattttacag ggtgctgatt ggtccatttt   3300
acctctagct agctaaagag cacggattgg tgcattttac aaacctctag ctacagaaaa   3360
```

6719

```
gttctccaag  tctgcactcg  acccaggaag  tccatctggc  ttcacctctc  acttcaactt      3420
gggtacagcc  ttctggcggg  caggaggatg  gcctttggtg  cgaacactgc  cggagtccag      3480
ggggctggct  ccctcacctt  tcatcttctc  ccggcacttg  caggatccct  ttgtggcctt      3540
ccacatcaac  aagggccttg  tgaagaagta  tatgaactct  ctcctgattg  gagaactgtc      3600
tccagagcag  cccagctttg  agcccaccaa  gaatgtaaga  ccctgtgttt  gctatgtcgc      3660
aactattggt  tgttgagggg  gacagagagg  gggtggaagg  agagtctaga  tgggatcaca      3720
gtcatagtaa  tcacagtcag  tagtagctct  ggggagtctt  gaggtccctg  cttctcttgc      3780
atagtcatga  ggtcacaggc  ccaagggagc  atggctttgc  aacctatggc  tcccccaagg      3840
ctgccactac  catggctgcc  atcattgtta  tcatcattgt  tatcatatga  gcacttacta      3900
tgcaccaagc  ataaactcat  aactcttaca  catttacaga  tgagataaca  ggctcaggga      3960
ggttaagcaa  cacagccaag  gatcacacag  ttagtaaatg  gcagagcaag  gacttagtcc      4020
cctgaactct  taggcactat  cccatggcac  ctcctcctgt  catcctcatt  gtcgtggtat      4080
ctttgcctag  gactgtggac  ttcccacagc  tacctcagtg  ggaggtcctt  gagcctgaga      4140
gggcccttgt  ctccagtagc  attggggtgc  agatgagaag  aataacagct  cctcttcctc      4200
ttctgcagaa  agagctgaca  gatgagttcc  gggagctgcg  ggccacagtg  gagcggatgg      4260
ggctcatgaa  ggccaaccat  gtcttcttcc  tgctgtacct  gctgcacatc  ttgctgctgg      4320
atggtgcagc  ctggctcacc  ctttgggtct  ttgggacgtc  ctttttgccc  ttcctcctct      4380
gtgcggtgct  gctcagtgca  gttcaggtga  gagcctttgg  cttgtcaagt  gcacagcaat      4440
gctcagcatc  cctggggaaa  gctccttggg  tgtttgagga  aggccaagag  tgcctgccct      4500
ccaagcaggg  cagatctgaa  ggtatgcagg  agtgagtgca  ggaacatgca  ttctgctgtc      4560
ttgacctgtc  tgctctttag  ccacatggac  atcttcattt  ctctcactgc  cttttagct       4620
gcttctccaa  gggttctctt  cttcctatgc  ggtttgttct  ctgccacagc  ccacctgtgc      4680
caggagccaa  gtttctggtt  tcttagcaaa  gcttggctcc  ctccccacca  ctgacattgc      4740
ccaatatgtt  aataatgatt  gagcgctaat  tcttgactgt  caggacccat  ttggcaagcc      4800
ttctgctcat  gtttcagtcc  tttctgtatt  ctagatgtca  gtccatcata  agtcatgagc      4860
ttcaggccag  gtgtggtgac  tcatgtctgt  aatcctagca  ctttgggagg  ccaaggtggc      4920
cggatcactt  gatctcagtt  caagaccagc  ctggccaacg  tggtgaaacc  tctactaaaa      4980
atacaaaaag  gccaggcaca  gtggctcacg  cctgtaatac  cagtaccttg  ggaggccaag      5040
atgggcagat  catttgaggt  gaggagttca  agaccacctg  gccaacatgg  tgaaaccccg      5100
tctctattaa  aatacaacag  ttagctggga  gtggtggtgg  gtgcctgtaa  tcccagctac      5160
atgggaggct  gaggcaggag  aattgcttga  acctgggaag  cgaaggttgc  agtgagccga      5220
gttggcacca  ttgcactcca  gcctgggcaa  cagagcgaca  ctctcaaaac  aggccaggta      5280
tggtggctca  cgcctgttat  cccagcagtt  tgggaggcca  aggtgggcag  atcacctgag      5340
gtcaggagtt  cgagaccagc  ctggctaaca  tggtgaaacc  tcgactctta  ctaaaaatac      5400
aaaaaaatca  gccaggcttg  gtggcgggca  cctgtaatcc  cagctacttg  ggaggctgag      5460
gcaggagaat  tacttgaacc  caggaggcgg  aggttgcagt  gatctgaaac  cgcaccattg      5520
cactccagcc  tgggcaacaa  gaacaaaact  gtctcaaaaa  aaaaaagtca  tgagcttcgg      5580
agctggcgaa  acagaagaac  agagaaggga  tggtgatttg  ccccaactca  cgtgtgagtc      5640
agtggcagag  gcagaactag  gacccatgtt  tcctgactcc  tgaggtgcat  cacaggcctt      5700
ggcagatgaa  ggaagtggga  gaggctgaag  gaggcatcga  ggtcagtgaa  ggcgacactg      5760
gggctggtgg  gctgctctca  gtgttgactc  ttctcaccta  ggcccaggct  ggctggctgc      5820
agcatgactt  tgggcacctg  tcggtcttca  gcacctcaaa  gtggaaccat  ctgctacatc      5880
attttgtgat  tggccacctg  aaggtcagtg  ggatggggag  gagctctcta  aaactccagg      5940
caatgaaggg  ctgccttggg  ggaagctttt  catactcgtg  tccctgcttt  tctgtagggg      6000
gcccccgcca  gttggtggaa  ccacatgcac  ttccagcacc  atgccaagcc  caactgcttc      6060
cgcaaagacc  cagacatcaa  catgcatccc  ttcttctttg  ccttggggaa  gatcctctct      6120
gtggaggtgc  gtggaggtat  cagtggaaag  gtcttgggga  ataggaggca  gccaacatag      6180
gggagttggg  gaagatgccc  acgatgttgt  cagtgtgggc  aagacactgg  ggctgggctg      6240
gctggggctt  ttgccatttt  ggaagttctg  gaaggcaaca  ggcaatagat  gggggctgcc      6300
caggagggag  tcaccatcct  ccctagagag  ttcagtcagc  aaaccgttac  tgcataaaag      6360
gcacctcatt  ttgcaaagga  tccagcggat  gaccagaagg  atccaaatga  tgagatagcc      6420
tatccttgaa  ggtgctgatg  gcacctcctg  gaggtgcttt  tttgacactc  ttgccccagg      6480
caagtattcc  ccttgcactt  tgtatttctc  tcccacactt  aggtatcctt  cttgtcacag      6540
tcttctctgt  ccagggctgg  actgtcttac  tcttctttca  tgtccaatat  ctggaacatt      6600
cattcactga  gtacttcttc  ccaccctgct  gatccccagc  ctgatttcct  gggtggtcag      6660
cgttgggttt  gagatgtcgt  ctgaagttgt  aagcagaaat  aatgtagctg  ctgaaggaat      6720
aatgcctggg  ggtggagatc  tggtgagctt  ttagtgagca  ttaggcaatg  gaaggttcta      6780
aaaggccagc  agaattcttt  gaaaagttca  tttaaagccc  tttgtcccaa  ggctgtaggc      6840
tgcagagttc  ttccaggtcc  acctcctcca  ctttgtgaca  tttcagcttg  cgaggaatta      6900
aattgtcgtt  aaaacacatt  tcagttctag  gcatgagttc  aaggtagcct  ggcgttcctc      6960
tcgcccctgg  ccatgagaac  tttgaaaggg  ctttggcagc  actggttggc .ctggcatgag      7020
```

6720

```
gagctcatag cttgaggctc atgccccacc tgtccataat gttcttattt tcccatcatg    7080
agcatggact tgggtttgtt acatgtccga taccattatg gtcagtacta tgcagatgac    7140
gaagcagccc tgtcccccgt ctgactccca tggctgcttc aagggcagtg tggttatttg    7200
ctgggcagtg gcatggggct tgtgcatttc tactgtcact acagagggtt taaaaaaaag    7260
acatgggcag gttaagtgga agggaacagt ctcacaccac tacctttatt gcttcttggt    7320
acttgggttt tcaggaaatt cctatcagca gacatcaaaa acagagaatg aagggacgca    7380
gttggcatgt gcctgtggtc ccagctactt gggaggctga ggtgggagca tcgcttgagc    7440
ccaggaggtg aaggctgcag tgagtatgat cacgccactg cactccagcc tgggtaacag    7500
cgcaaccctg tgtgtaaaaa taataatttt ttaaaaagat taaaaccaaa aaaaaattgt    7560
aaacagagtt caacgtaact tacagattaa aaacagtaaa atatgacaga aactgagagg    7620
tagtcatgat cagatatggc ctccttcggg tgccgacatc tgaactgaga cctgaatgat    7680
gaaaagggcc aacactgcaa aaattcaggg aaggaacatt tggaacagag agaacagtca    7740
agtacagagg ctcccggatg ttcagggaca gtaagcaatg agagaatgag aagaccagaa    7800
aactagggag gggccagatc atgtagggcc ttagaaagcc atggtaaggg tgtggtaaga    7860
agtttgggtt ttattccaat agcaatgggg agtcacagga gggtttctgg tgggtacagc    7920
aatctgcttt gcactttaaa aggcttgctc tggctggagg tggagaggat gaattataga    7980
gggtaggtat aatcacagat ataacctcag tgaggcggct ggagcgagtc cagaccagac    8040
cacggaggag caggtgaagc caatggattt gggatatgtt ttggaggcag tgtaagcaac    8100
gcttgctgag gacctggatg tggtggtgag aatcacccca tctcgagcaa cattaactga    8160
ggaaaaaatt gaaaaagggg cgcccttgct tgggggcttc ctattgtgga actgttatgg    8220
aaaggagccc catccattgc ttcctccttg aatggcaaat gcctttatga tccctataac    8280
ttgtcccatt atgtttagac ccttggtggt cagaagggtt ctatttaggg cagtgtcccc    8340
tgcccctcct tgtcctccaa aaattttggg aggcactgac gtggatgtca tggggtcagc    8400
acaggcatca acatccccag agggatggaa ccaagcagcc tattgcccag gcattcacta    8460
acaggcagcc catcctcagc ctcatagctg gccggggaga agaaaggcta ttttgggtcc    8520
cagatctttt ttttttttt tgagacagag tctcgctctg tcacccaggc tgaagtgcaa    8580
tggtgcggtc tcagctcact acaacctccg cctcccgagt tcaagagatt ctcctgcctc    8640
agcctcctga gtagctggga ctacaggtgc gtaccaccaa gcctggctaa ttttttgtgct    8700
tttagtaggg acgtggtttc accatgttgc ccaggttggt ctcaaactcc tgggctcatg    8760
cagtccgcct acctcagcct cccaaagtgc tgggattaca ggcatgagcc actgcacccg    8820
gtctctgttt acaaatttat caccagcttc atcccctaag gttataagct ccatgagggt    8880
gggaagtctg tattgttcac ctctgtatcc taagcatcta gaacatagcc cggcacacag    8940
taggtgctga agaacttgaa tctgttaatg tagaaaggat gtttcatcta gctgaagtgt    9000
cttgtacaga ataaactctc aataaatgaa ctgtggacac atggaagggt gagctagagc    9060
tctgctcagg ggttgagtgc tcctcttgtg cccttgtggt tgtctggtta cctgaactaa    9120
ttggagtgcg atgcagacat agtcatggag tgagacagca gaactttgct gtcttgtttg    9180
tgagcccaca tcaggggttc tagactggct ggttgacatg gtggccccag cctgtctctt    9240
cagcagctcg gcttataaaa aataaccacc acctactggg gaaaactgct ggaaccttca    9300
gattgccaaa ttgttcttgg tgtcttttcc agaaatattt gccaaactcg aattagcctt    9360
caggagattt gataaagctc atgtttaagt caagagacca aaagattttg atggggagaa    9420
ttaggggctg gatatagagg gaatacttaa cctgtatagg ggcagatatg gttgtccatg    9480
gagattctgg tgtgaaaaag tacgatggcg gccgggcgca ctgcctcaca cctgtaatcc    9540
cagcactctg ggaggctgag gtgggtggat cacctgaggt tgggagttca agaccagcct    9600
gaacaacatg gagaaacccc atctctacta aaaatacaaa attagctggg cgtggaggca    9660
catgcctgta atcctagcta cttgggaggc tgaggcagga gaatcgcttg aacccaggga    9720
ggcagaagtt gtggtaagcc aagatcgtgc cattgcactc cagcctgggc aacaagagcg    9780
agactccgtc taaaaaataa acaaaaaagt acgatgggag aaaggggaga gggcagtggg    9840
gcctggaaac ctcatgacaa agagaatgaa cacaagaggg cctgtggtcc tgtagactct    9900
gtgctgtgca catccctcat gtgagcatgg gccatccagc tgcaggccat ggtgtgacac    9960
actctgcaga ttacagtcta gggcttcatg ttccatgtgc tggaggtaag gctgggcctc   10020
ttggagcttt ccaatagcac caacaagctg tcagccctgg aggaggccta aacctccaag   10080
caaggaaagg tcaagtcaca gagggaggaa tcactggtct ccgaatgctc atgtgtttgc   10140
ttttcttcac agcttgggaa acagaagaaa aaatatatgc cgtacaacca ccagcacaaa   10200
tacttcttcc taagtgagtg tccccatcca acacagggga gctgcctcag gagggaatgc   10260
tgagggaatg aggaggatgt ggctgtccaa gggattatgg tattttaagg aaagggcta   10320
gaggaagtac cccactccca cccccagtta ctccctgcat gacagcagtt tgccatctca   10380
gctgagcgaa gtgaagttag gctgatgatt ggttgaaggc aaactagttc ttcccatcca   10440
accccagttt ccactgggaa gctgggtgtt tggggtgtag aggggcctct tgctttatcc   10500
tcaaccttat ctttttttt ttttttttga gacggagtct tgctctgtcg cccaggccgg   10560
actgcggact gcagtggcgc aatctcggct cactgcaagc tctccgcttc ccgggttcac   10620
gccattctcc tgcctcagcc tcccgagtag ctgggattac aggcacccgc caccgcgccc   10680
```

6721

```
ggctaatttt ttgtattttt agtagagacg gggtttcacc ttgttagcca ggatggtctc 10740
gatctcctga cctcatgatc cacccgcctc ggcctcccaa agtgctggga ttacaggcgt 10800
gagccaccgc gcccggcccc tcaaccttat cttaaacttt gtcaagatgg gccaaggtaa 10860
cctggtagag cccagtccaa cccccagagg aacaaaggta cagatagttc tggaaggatg 10920
ggtcctgagg agagaatgga agagctgtta gaacgaagaa gatctttctg atgactgcca 10980
catattccca gctttaaaag tctgtcccag ctactaagga aactgaggtg ggaccatcct 11040
ttgagcccag gaatttgggg ctgcagtaag ctccgattgt gccactgcac tccagcctgg 11100
gcaacagagt gagatcttgt ttcttaaaac aacaacaact ctgctccata atgcctaaaa 11160
tgagctttaa acgcctttaa attttcaaat tttttaaaga aggaagggaa ggagtccact 11220
gatcttattt tagtttgaag gaattcatcc taactgccta tcaccaacta tcacgaatag 11280
agaaaggcga tggggcagaa gggtagagca gagacctctg gaagaaatag ttttagaatc 11340
catggcacat caagatggag gagccatggg tgagcattgt catgctagga gttatgggta 11400
gcatcaggtg ccacagagaa gggctacaga aaaggaaatg aggaagcatg tagaatgcaa 11460
cacttcttca actcccagtt ttctttcaag agaggcccct ctgttccgtc ccacagctga 11520
cctccagggc ttcagattgg ggtggcacaa gcccatctcc ctagtttaag gaagtgagct 11580
tcacagcctg tgaaggatcc acagggtccc tcccaacaca cacacacttt cctgctcctg 11640
cccccttcacc tgcatggtgg agctgccagg aacaaagggc agatgactgt agggacaggg 11700
ctgtggccaa ggtaagtaag agagtattag cacccttta aaagtgtggg atccttggag 11760
tgtgtatgta gaaaagagaa gaaaaatgaa aaataataaa ggtgtgggag cagagcaagt 11820
cccatgcgtg gggcctgagt tcccaagcac ctgtcactga agagtgccac tcgcaccct 11880
caccttccct ggcatcctct tgggagtttt tgccttcccc agacttggat ttatgcccac 11940
cttcagtgcc tgctggttcc agtggattgc agagcactca agcacctgga ggggagacag 12000
aagggatggt tggaagaggc agcccctgc tagaggccat ctctcccaac atcaactggc 12060
cctttcatga ccttcctgtg ctcatgcctc ctctttgtct cggtttcctc cccagttggg 12120
cccccagcct tgctgcctct ctacttccag tggtatattt tctattttgt tatccagcga 12180
aagaagtggg tggtgagtat ccatggccca agaagcccac atccttgtct ccagcaccca 12240
gagtggggga tagggttcc ccaggggaaa cttgagactg actctaggcc taatttagaa 12300
caaaataata gaaccagaca cagatcctcc ttatctctaa gtgggacgaa atgatttgag 12360
cttagcaggc agcctgattc ccaatgtgta atttcatgcg gtcagtgtct ccagaggttc 12420
ttgtactggg cataatgcca gggggctgag ttgggaatgg ggaagatgaa tgagagacaa 12480
tacctacttt caaggaaact tctgatgaag cagaatgtgg ttattaatca gaaaagaggt 12540
acaggcaata ggttctgggg actccaaaag gggcctgact gcacctggct ttgtgaagtc 12600
acttttctag ctggccttga ggctgggcag ggtttctgac aggcagaggt ggagcagggg 12660
ggatgaactc tgagcagaga agctggaaat gaggggtaag tttgaccacc agacatattg 12720
tggaggacta gtgtcagggg aagagtatgg tgcttggttc agtgatgaga gatttgatca 12780
gggcactggc atggactgag ccatggtcct ggcagattca tttggcggca tgctgaagga 12840
tttagattgg ctaggaagag ctagaggcaa agagaccttg taggccttgg tacttttgaa 12900
ggggacatgc aagaagggct gggggggtgcc aatgggaatg gaagaaagga gcagtggcac 12960
tagatactgc aggattggac ccctgagaag ctgaagatga gtgagtctgg ataaccagga 13020
gaatggctgc accatgcaaa caaagagctg ctgagaggaa gaggaagagt tgttcgtgac 13080
tgttatgctc gctgctttc tcactatagg acttggcctg gatgattacc ttctacgtcc 13140
gcttcttcct cacttatgtg ccactattgg ggctgaaagc cttcctgggc cttttcttca 13200
tagtcaggta gtattcggtg ggggcggata gggactggtg aaggaaatgt ggggagtga 13260
ccagtctggt ctaggggccg tgctggggct ttgggtaaca gtgggtgttt caggagttgg 13320
cttgggaaag tagacaggct ggagcagtta tctgagggg gaatcagaat tctgggctct 13380
gtgtgtactg ttttgtctg tgtaatacat ctaacaggtt cctggaaagc aactggtttg 13440
tgtgggtgac acagatgaac catattccca tgcacattga tcatgaccgg aacatggact 13500
gggtttccac ccaggtaagg gacagtcact cagaagactg gagcataaca caactattga 13560
aaaggatgcg taggtgaaaa cagcaaaaac aaaaagtccc ccaaacagca ttttctcatt 13620
agcctgaggc tcttgttctg caaccatgtg aagggagtga ccaagacagt ctcatgtccc 13680
ttcctcagcc agctttacct ggagaatgct gggctggcct ttccatctga tattcaacat 13740
gctctcccct gacctttcc gccagctcca ggccacatgc aatgtccaca agtctgcctt 13800
caatgactgg ttcagtggac acctcaactt ccagattgag caccagtgag tagggagcct 13860
ggggaagcag ggtcctgggg agggtgtaag tgttgggtac aggtgggagc agagaagcag 13920
gaaccactga ctccccgtt ctccctaaag tcttttttccc acgatgcctc gacacaatta 13980
ccacaaagtg gctcccctgg tgcagtcctt gtgtgccaag catggcatag agtaccagtc 14040
caagcccctg ctgtcagcct tcgccgacat catccagtga gtatctgaga ccaggaagat 14100
ggctagtagg gagggaagag ggcagggcaa tggaaatgat gacatgtagg gtggggagtg 14160
aacagaaggt gttcccagtc gtgtgggatg gagttcacca tggcaaaggc aggattcttt 14220
attggacctg tggccaggtc aggcctttgc cctcattggg gttcccctca gtaccatggc 14280
ccaagctagc tttctctaaa gtagagggga ggaaaacctc cagatggaag aaggccttaa 14340
```

```
cctcactgct ccatctccgg tgggttcaac tctgcttgtc tccctcactg tctgcccca   14400
ttttgtccct gcagctcact aaaggagtca gggcagctct ggctagatgc ctatcttcac   14460
caataacaac agccaccctg cccagtctgg aagaagagga ggaagactct ggagccaagg   14520
cagaggggag cttgagggac aatgccacta tagtttaata ctcagagggg gttgggtttg   14580
gggacataaa gcctctgact caaactcctc ccttttatct tctagccaca gttctaagac   14640
ccaaagtggg gggtggacac agaagtccct aggagggaag gagctgttgg ggcaggggtg   14700
taaattattt ccttttteta gtttggcaca tgcaggtagt tggtgaacag agagaaccag   14760
gagggtaaca gaagaggagg gacctactga acccagagtc aggaagagat ttaacactaa   14820
aattccactc atgccgggcg tggtggcacg cgcctgtaat cccagctacc caggaggctg   14880
aggcaggaga atcgcttgaa ccggggaggt ggaggttgca gtgagctgag atcacgccat   14940
tgtactccag cctgggcgac agagcaagac tccatttcaa aaaaaaaaa aaaatccact   15000
catataaaag gtgagctcag ctcactggtc catttctcag tggcttctcc atcctcattt   15060
gcaaacctca gagggataag gcagttgaac ctgatgagca agaattataa cagcaaggaa   15120
acattaatgc ttagaattct gagatccagc acaactcagt ctgtgggagc tcagctcgct   15180
gcccagggat aggtatgacc tatgtctgcc ttaggctgct gggagatgcc attctccagt   15240
ttcagaagca ggcagggcaa aggtcaagac tgtggtattg gggtcttttg gctctgaagg   15300
atcctggaac cactgatttt ggtttattcc ctccagggtc taaagagaac aagaggtgct   15360
agctcttacc aaaacagatg gtagagagag ttgctggcta tttaaaaagc tctttcatct   15420
tttaattcac ctcttctttt cacctcttta accactcctc aggaacagaa cacttctagg   15480
actgggggtc ttttagctcc ataagcaagt gagcagatgg gacaagttag tcttttctcc   15540
ctagaaacaa aggggatgcc cagtggtttc cctttgcttc ccaacctaaa atttcaagtt   15600
taataaaata gcaattagca gaagtgacca aattgggaga taattatcag tcatgaggaa   15660
agacacagat ttcggtcata aagaatgtaa gggctataag tagaaacttt ctataaccta   15720
aatgatgtta tagaattatt tttgagcagg agcagaaaga ttaaatatga tcacttcata   15780
cttctaaatc agaaatagga agattaaaac cacagaacag tttgtgattt ctattgctgt   15840
agctaggtat cttactctgt ccactcttgt tcaagtatct aactcttctg gaaaccaaat   15900
aggctttaga agagattatc ctatattcct atcagtataa tactaaaatg taacttttta   15960
atcatctggt ttttaaaaga taaacagttt agcccatctc tccagagagc aaacatagga   16020
atatgactca ggagcctcct agggcttatc atcagccctc acacccgctt ccccctccaa   16080
cccacagcct ttgcttccag gtggcaggat tactactttg cctcttcagc agcatctact   16140
ctaggcatat tgatcatttt agacactggg agaagagaac ctcaaactag gaggaaaaga   16200
cagagcctcc acttagtttt gggaggggat ggcagacagt caaggagatg agcgtcctaa   16260
ggcatgttgg gatagggtca gatgcaccac ccatggagag gtttgtcaac acaaagacat   16320
ggaaggttag aggtttgtca acaaaaagac atggaaggtt aggtttgtca acacaaagac   16380
atggaagatt agaggtttgt caacacaaag acacaggaag aatgggctgc agaagattta   16440
gatgttttcc atttgggcac attttactta gctggagaac taggtttaaa acagcctggg   16500
taggaaaatt agaagcaagc tggatgcagt ggctcatgcc tgtaatccca cacttttgg    16560
gaggtccagg caggaggatc acttgggccc aggaggtcaa gcctgcagcg agctgagatc   16620
acaccactgc actccagcct ggggtgatag aacaagaccc tgtctcaaaa aaaaaaaaa    16680
caacaaaaac ttagaattga ggagttgtac ctccattggc ttcctcactc caaaataggt   16740
gctgatcctt cctattccta ttctttgcca ccttttgggt gtggtgtcac cagcctgttt   16800
agccaagtag ctttgggcat aggctgccca atctgagcaa acaccagtga ggctctattg   16860
agccaagacc aagtcctcaa agcacctgaa ccactgtggc cttctcagcc tacagcagtg   16920
tggtctctta catggccaca aagggacaca cagtgacaaa aggctcggaa tgttacaatg   16980
gtaaaatgag tgatctcaaa tccactgaca gatataaaat aggcttagag aggaaaagct   17040
gcctctggtc aagtagatca tggcagcatg aattccaact cactttttta caactccaac   17100
ttctatgttt atctttgtta ctttcacttt tttacaacct ggccagaggc attttttaaa   17160
tcaggcccaa tatcagtatt cttttttgtgt gtgccaattt tgttatcaca tccctatgaa   17220
gttgaaaaat aaagttaatt ttgaccaaaa gacttcattt gtaacccatg atgttcatct   17280
gtgtgtgcac aggattcctg agtgcctctg ctacgagtta ctgttcacct ctctgtgctc   17340
ttaagttctt gaatcactag actcccctt gtattgggca gaggaagaaa catcaggacc    17400
ctccagaaaa caccaaggca agggtgaagt atggcaagga agagcaaggc aaagtccttc   17460
tgatgactcc cgtgttcaaa tgtgagattg tcaataatct caccaagttt cacacgtatc   17520
acttcctcct attcatgagg caatgccctt gccttttgt ccttcagctt tccattttga    17580
attattttct ctttattttt acacttactt gttttgagac aaggtctggc tctatggccc   17640
aggctggagt gcagtggtgc tgccatctta gttcactgca ttctctgcct cccggcctca   17700
agccatcttc ccacctcagg ctaattttt ttttttttt ttttttttt tttttttttt     17760
ttgagaccag agtttcactc ttgctgctca ggctggagtg tagtggcgtg atctcagctg   17820
attgcagcct ccgcctcctg gtccaagca attctcctgc ttcagcctcc cgggtagcta    17880
ggattataag catacaccac cgcgcccagc taattttta ttttagtag agacagggtt     17940
tcaccatggt ggccaggctg gtcttgaact cctggcctca ggtgatccac ccgccttggc   18000
```

6723

```
ctcccaaagt gctgggatta caggcgtgag ccactgcgcc tggcctctct ttactttaa   18060
actcatttct agtttccaaa tagtctccct aagtcctatc tgcctaaatc ttcctctgca   18120
agtgtgatcc ctcagagctt gactgcagag cagtgcctct taaccatcca actagaacag   18180
ctctgagcaa aaacatttgt aggcatcatt aatcttccct gcagtgtgca cacagaaagt   18240
cagattaaca aaattctata ggagacaaac ttaccttcaa aagacaaaag aaaaccacta   18300
cattcttgac caccacaggg tataagccct taattattaa gagctactgc actgaggcaa   18360
taactcctaa gaaatcttaa catttcgcca ggcaaggtgg ctcatcctgt aatcccagca   18420
ctgggagaga atggcacacg taatcctagc ctttaggagg ccaaggcggg aggattgctt   18480
gagcccagga gtttaagacc agcctgggca acagtgagat cccatcttta caaaaaattg   18540
aaaaatcatc caggcatggt ggcctgtgcc tgtaatccca gctgcttggg aggctgaggt   18600
gggagaatca cttgagccca ggaggctgag gctgcagtga gccaagatcg cactactgaa   18660
ctccagcctg ggtgacagag caagagactc tgtctcaaaa aaaaaaaaaa aaaagaaatc   18720
ttaccgtctt tagttcctat caccattact gcagatttag aagcaatcta cctgaatcag   18780
aaaatagagc tcaaataagt tgtgtggctt ggtataatct gggaaaatca gtttcaaaag   18840
ttacctgccc ttgggataga acttttgtc aacaccagtt ttcaaaaagt accctagtta    18900
tgaggccgtt gctgggtaaa ctttatccca ttccagcttc aaccagagga acctgtacat   18960
cctaaagttt cacataagat tacacttgaa gaataggttt ctccattaaa agacttgaaa   19020
actactggtc ttcaggctcc ctacctgttt aatctgtcaa gacattgcca gcttaaattt   19080
cggacagtta cataagtgtc cctgttaact tcaaatggcc ctgacaggaa tgctaaaacg   19140
tcagacattc aaatgggcca agctttatca ggattataaa actttcaaag ctcaaaaaca   19200
tgccatctct atgggaaaca gtatcttgga tttgatgtta caaaaggaac aagaaaatgg   19260
tttctgaatg gcagctttca gtttacaagt agtggcaaag taaatgcttg gatgttatga   19320
ggtagttgat ctaaattgtg aggctttctt aaaggcactc ctttgatctc atggagtgag   19380
agactagaaa tctattcaac gtattaaaac tcctctccca gcaaaataaa ataaac        19436


<210> 9177
<211> 1222
<212> DNA
<213> Homo sapiens

<400> 9177
aaaacttaaa gtataataaa ataaaagatt tacataaaac attttttcctt gattctgtat    60
taaaggaaag atgacattat tttcaatgtc tgcaaaatat ttcactgatg ggcatttaga   120
gtgtttccat ttcccgctat catagatact gctttaatga atattttttg tttataaata   180
gttttctttt tttgtgtgtg gatatagaat cttgctttgt tgcccaggct ggagtgcagt   240
ggcacaatct cggctcactg caacctctgc ctcccggatt caagcaattc tcctgcctca   300
gcctcccgag tagctgggac tacaggcgca cgccgccacg cccagccgat ttcttttgtt   360
caggctggtc ttgaactcct gagctcaggc aatccgcctg cctcgacctc ccaaagtgct   420
aggattatag gcgtgaggca ccccgcctga cctataaata ttttttctaag aacatttcct   480
taggctatat tcctaaacat ggaattattg ggaacatttt tattttttcta ttttttttttca   540
tctcttcagt attcaaaaca ttcctaaatt ctggccgggt gcggtggctc acgcctgtaa   600
tcccagcact ttgggaggcc gaggcgggca gatcacgagg tcaggagatc aaagccatcc   660
tggctaacat ggtgaaaccc caactctact aaaaatacaa aaacaaaatt agctgggcgt   720
ggtggcgggc acctgtagtc ccagctactt gggaggctaa ggcaggagaa tgccatgaac   780
ctgggaggtg gagcttgcag caagctgaga tcaggccact gcactccagc ctgggcgaca   840
gagcgagact ccatctcaaa aaaaaaaaaa atcttaaatt tctatataag ttgtcaaact   900
atttttttcca gtttaatcaa cttacacttc taccagcagt atgagagctt ttatcccact   960
gcacagtcac ataggaaaaa tggtttatgt aaaggacctc tcttctgtta tttaataccc   1020
atgaatttct tatatagttg taatcagcga acccatacta ctttgggttc tgcttatttc   1080
acggggaagg attctatatc tatcaatata gttcacattc tagccattta aaatcattct   1140
ttaattcttc attgtgttaa cagatcccaa taagcttggc gattttctta ttgtcaggac   1200
tcgggtttat ttccagtttt tg                                            1222


<210> 9178
<211> 4443
<212> DNA
<213> Homo sapiens

<400> 9178
```

```
acattttggt tacttttaga attttattga cttttttctt cataacttta aaacaaaaac    60
agcgcatgaa aaccagtgtc ttattccaaa gtctcaactc agctgattgc caggtgaaca   120
tcaccatctt actcctctga ataactagac acaaattaca tagcaagttc gagtttctgc   180
ccacccaaga cacagccagt aatcagtcac aaacacagac acagccaact ccaggggctc   240
cagctttctg cccatcttct ctcagcagtt cctcccatct gctaagatgc gccttcctgg   300
tggctctctc tcaaggtggg tcaaggctga acaagacaga aaagcacagt ctaggtccac   360
catcacctcc cactggccac cagttggcca gccaggaaat catttctgta catcttttgt   420
ctcccccttt tatctccctc tctcttctcc aaaacttgtt gctatctatc actttcatgt   480
aacaatggac ttagtgtcca ttaaactgcc tgagaagtgg tttgagcctg acatattttc   540
ctgagctaaa aaaggaaaag tacctctgtg gccttcttgc cattaagatc aagtaaaaaa   600
gggactagca ctactgaaaa gggtcacgct agaaaagcct tagaatcctc tctccacccc   660
gtgaaggttt ctctagctgt agctcttaag ggtacaagac ggcaaatatt ctggggtgaa   720
ggaggtataa tggggaaaca catttatttt cccctttta acttccctgc tgccccagtc   780
tttgccttct tcttagtgga tcccttgggt tctggctcct tgcgcttagc tgaagagagt   840
gagccggtca ccttgaagaa atcatccagg cggccctggg tgctgccttg gcggctctta   900
ctcagcctct tgaccccact gcggattcgc tcctcagaga actgctttc accacacatg   960
aacttgatca gctcttcttc atttggctcg ctccacttca gctccacaga ctctgggtcc  1020
agcacctcag gttccaagaa gagctggtga gcctccttgt ggagccaatt ttctggcaca  1080
gggtacttgt tggggtcaag tcgccgcacg atctcctcga tgctcttgtg cttctggatg  1140
aggtccacag cccgcttggg cccaataccc cggatactct cacagtagtc actgcctagc  1200
aggatgcaca gatccacaaa ctgttcctgg ttcaggccca gctcctgcag aatccggctc  1260
aggtggaatt cctggattgg cagcttttg gcttcactgg cagtcaggtg tcgcattagc  1320
acagggctgc cgaaggtgag gcagtccatg tcctcggtag ccgcagcata gactttgcca  1380
gccttcacca gggcagcaca gctggcctct gcctcactgg gtgcatcaag ataagggatg  1440
cccatgaggc tcagcagatg tttgcactca tcattgtgct gcttagtgac cttcaccagc  1500
cgcttagtga attttccac ctcctgctcg ccccagcag cctgagcctg ctgcagctgc  1560
ttctctgcct cagcccgccg ctcactgcgt ttggccagct cgcctgactt gagctgtggc  1620
ggcttgccat caaagacata cacgggcttg atgccgttct ccatcatgcg aatggtgcgg  1680
tagaacatgc ccatcaggtg gctggtggtc tcaccctcct cattctgcag cacatcccca  1740
ccctggcgaa cagcaatcag gaactgataa atgctcatag aggcatcaat ggccacctta  1800
cggccaaagt agctcttgat gtcattctcc cggatggcac tgggggccac atcagcaatt  1860
agtttggcca ggccttgaat tcccatggca acacagagga gggatgacta aaaaagaaag  1920
gcaagtcaga gacggaggaa aggagaaagg ttataactgg tgttatctca ccaacttcat  1980
gccttcaact aaattccaca caacaaaaag gacaccatgt cagcactgct aaagataaaa  2040
agatgaacaa ggtccccatt ctcaaaaaac tcagtctagc aggagaattt actcaatagt  2100
aaggctcaac gagtaccaga aattgaacca cgtgcttaga gaaataagat actgttgata  2160
ttctaaggta gcagcattat ttattacaca aaaaaaacct gcaacatagg tctccatcaa  2220
ggaccacaga aggccaggat gcttggcctg cttgaggag tccagggacc ataatggcag  2280
acctgaaaga caggcaaata caccagctaa acaaacagat ctgatttgtt ttgagtctct  2340
ggagaaccct gactaataag gcagccttga aaaaggattg caaacatatc tgaatggagg  2400
tgatgtggct ttctcacaag cttctctaaa ctctcttcat catcgcctca gcacataaga  2460
gtttctactt ttattataat gttgctagag tttcaagtct ttcccttgc gttttctcgc  2520
caccactcag tctgaaatgt taactccatg gctcctcccc aggtcctgat ttaggggtct  2580
ggcatgctgt agtcactggg ctcaaaagag tattgcactt cagagttcag tgtttcccag  2640
atagcagtgt ttcccaaatc accctcacga tttttgctac ttccaactaa aacccgtact  2700
ttcattcact tagaattttt tttaaaaaac taaactggaa aactcataag caataatatt  2760
tgtgttctat tagttatatt ttaatatgta ttaaatgtat aactattaaa aaggattttt  2820
aggggtgca atttaaaatc atcttgccat cctggccaac acggtgaaac cctgtctcta  2880
ctaaaaatac aaaaaaaaaa aaaattagct gggtgtggtg gtgtgcacct gtaatcccag  2940
ctactcggga ggctgaggca ggagaatcgc ttgaacccag gaggcagaga atgcagtgag  3000
ccgagattgt gccgctgcac tccagcctag caagagagtg agactccgtc tcaaaaaaat  3060
aaaaaactca tcttgtgccc actgttggta tgtgtccaat actccaagaa atattctact  3120
ggggccaggc acagaggctc tgggcagtaa tcccagcact ttgggaggcc gtggtgggag  3180
gatcacatga gcccaggagt tccaggctac agtgagctat gattgtgcca ccacactcca  3240
gcctgggcaa cagagcaaga ccctgtcaag aaaagaaaag aagacaaaag aaaagagaaa  3300
gaagaaacga aagactccat caggcctttt cattgttccc actctttctt cacagggttc  3360
tttctagagc atcaatgact gttcaattct tccttctaat tcagtccaaa cacttcagca  3420
tggcatcacg atctttcatg ttctggttcc caacctaacc ctacattctg ggatctcaac  3480
agaaagctgg aataaggccc gccttttccc acttttcctt agctgtgccc tcctctcgcc  3540
atcctctcac gcgtccttcc aggtccatcc ctggattatt aatcaattaa taattaattg  3600
acaatgaatt attcatttga ttaatatgaa taattcccct gtgaactgca gcggcaaaag  3660
```

6725

```
ctctggcctt gaatctaggc gcggcattta ccatccgtgt gacattacca agccactgag    3720
gtttattttc tcgtctacag aagaagaacg attaccatgc ctgtctctca gggctgctgc    3780
cagggttaac tgagacaaca gacagaaacc tctaatgtcc cctctccagg cctgttcaac    3840
ccttcggctc ttgcctcaag ccggccgcgc tgctggagtg tggactgagg accagaccat    3900
gtagcccttg atcccctcac ggcgtcccac agacaggtag gcaggaaagg ggcctaaaca    3960
actcaagtgt cagaaatgtt tctcgtccaa ggtcttagga aaaatacaac acgaccccat    4020
aaggtggaac ttattaccgc ttttctacaa tggaggaaag agaggctcgg agcttacgcg    4080
actggcccaa ggctcacagg gggaaaagtg gcgggacctc ttgactgcga atcccgcgca    4140
ctccagaccc cggctcccca cggcccccag cgccaagcgg accccgtcgc tcccggaggc    4200
gcttcccatg gggtctcacc tggcctttgg gacacgcggc ctcggcggct aaagcttggt    4260
tcggggttgc cccgggcagg cggtcctaag ctcgctctcc cttctcagct tagcggcggg    4320
tggcctgacg ttcagccgcc ttccaaagcc cgcgctcccg tcacgtgacc tgctcgccac    4380
gcacagcctc ttggggcgcg tagtgcaggc tgcgtcccct cagacggctg ctctcatggc    4440
aac                                                                   4443


<210> 9179
<211> 6725
<212> DNA
<213> Homo sapiens

<400> 9179
ggtgattaag gctgcagaag acagtgcgtt gcagtatatg aacttcatga atgtcatctt      60
tgcagcacag aaacaggtga actgagagcc tgccgtttaa agtatttgtt tcataacgaa     120
ggagtcaatt tcattttttg aatgctctac tctgaggtat tctgactacg taggcttatg     180
aatgggcaag gaatccagaa tctgtattat gttctagtct tttctctatt ttgggtcctg     240
gaccacttga gaatctgatg cattcccaaa acaatatgca ctcaaccaca gttttgcata     300
gagtttcatg gtattcaggt aacctttagc ccatccttgg accccatgcc aagaatccct     360
ggtttgacag tttgctgtat aaaccttgca tcagtttctt tatcttgttg ctgtggcgaa     420
gctgtaaaaa ttcagtattt ttactttgca aagagctgaa atgttcagat gaagtataat     480
acattttctt ctttggtgtg tttatgaaga aagaaaacct ccttaaaatt tcagtttttaa    540
tgtaaaatgc tgctatagcc atgcataatg ttctctgttg tggagtggca gcatgatgta     600
gtgaaaagag cctggacttt ggagacatgc cgagtggggt gacagctttc tcacccgctg     660
gctctgtgac cacagcccag ccatgtcctg ggtgcttcag ctgccaaatg caaatatctg     720
ccgtgcagag tcacgttgca tattgagtga gctattttaa gcatagagta tggcatgtag     780
taggttctca gtatagggta atcattattg ttattattcc tgtaatattt tcaaaatgtt     840
tcttttagaa tattttgatt gatgcctgtg ttttagactc cgactcaggg ctcctccaac     900
aggtatgttt taaaaccatg ctttgtgtcg gtggttatga caattagtga tttttatatt     960
gattacaatt taaaatgaaa gctttgggta tattgggtta aataaaatat gttattcagc    1020
ctaattttat ctatgtcttt ccccttacg tatggagcta ctggaaaatt ttaaattaca     1080
tattgcttgc gttatatttc cgttgggcag cactaaaaga caaaaactga attttacttt    1140
aacccgaaag ggaaacaaaa ccctaaagta agtctgaaga aattactgag tttttgttag    1200
atgttttttg gccacaaatg ttgtttccta aaggatcagt tacaagcaca aaactatgac    1260
aaaccctgaa tttaggttac tgctggggat gaaggatggg gagagcgagg tccaatggga    1320
aaatttacat gcttcaaagg ctctgagatt gtactgtttc ttcagcttga tcgtaggtat    1380
atgatgttca ttttattatt taaaccatac ttacacatta tgtatacaga ctcttgtaca    1440
tattatattt cagtagtaaa aattcaaaaa gtttgaattc attttttagc aacacatttc    1500
agtctacaca ttgtctatta actccaagac gatcttgtct ctgccatgaa ttcacatacc    1560
agctctacct cctcagccct cacattcatt tttctagtcc agtcccagac tctcctgagt    1620
tccagacttg cagaatcagc cgtgtacgta gtacctcctc ttggacgtct ggcaggcatc    1680
ttcagtgtca tgtgtcaaaa gcagagagct cttggtttgt cctctcagcc tcttcctgct    1740
ccactggtag ccccatctcc ctaagtggca gtgcagttca ctcagcaact caagcaaaaa    1800
cctgactctt ccttgtctct tctcttccct cctttcataa ccatgagcaa atcctgttga    1860
ttctgccttt aaaatatatc ctggctgagc tcagtggctc atgcctataa tctcagcact    1920
tgggaggctc aggcgggtgg atggcttgag ctcagaagtt taagaccagc ctgggcaaca    1980
tggcgagaca ccatctctat aaacaataca aaaaaattag cctatcatgg tggtgcacgc    2040
ctgtagtctc agctgttcgg gaggtggagg caggaggatt gcttgagcca ggagttcgaa    2100
gctgcagtca gctacgatca tgccactgca ctccagggaa accctgtctc cctcttaaga    2160
aaaaaaaatg tgaaagttgg ttctcagaac agctgtcaga atgaagcttt caaaatacaa    2220
gattggtgca aaagtaattg tggttttttg cttttttttt tttaacagta aacactgcaa    2280
ttactttttgc accaacctaa tataaattag aacctgttgc tcacttgctt aaaaccctcc    2340
```

6726

```
catagcctag catcatacgt tgactaaaac ccagagtcag ggcctgccag ggccttccag    2400
atgctgcttg ctgaggctcc tgggaacctt ttgccccgca tcttccacac tctccctctt    2460
cagtccggcc ccaccgcccc cttgctattg cctgaaacag gcctgcttcg gccagagggg    2520
cgctgcactt tctgttctct ctgctcgcaa gctcttcccg caggtgtttg catggcctac    2580
tccctgcctg ccttcacgtc tctacttctg tgccacctcc tcagagaagc cttccctgac    2640
caccattgtt agtgttactc cctctcccct tagcctactt tattttttctt catagaaatg    2700
atcataacct ataacattat ttttgcattt acttacctga tttactctct gccttctcca    2760
ctagaacctt aacttcatga ggatggacac tgtgatgttt actgctgtaa ccctgcacag    2820
tgctctaaaa cagttgttaa atgtgtaaat gaatctaacg gaccaactga accaggactg    2880
tactatcaga ggagcctcag ggtcctagga tcggagctag ggttttcagt gtaaatggaa    2940
gcactgctgt gttaaagcga gaaagctgtg tttatgaaat gaatagatga atgattgttg    3000
ggaaaaacta ttaacatgga caggaaacct tagtgtcagc aaccaggaga gcttgagtgt    3060
tttgtgtctt tggaaaactc tgaagatagc aaaagtttgg aaaaagagga ccaaattcaa    3120
aagagtttta tttttatttt attttatttt attttttagac agagtcttgc tcttgcccag    3180
gctggaatgc agtggcatga tcatggctca ctgcagcctt atcctcccca gctcaaatga    3240
tcttcccact cagtctccca agtatctggg accactggca tgcactacaa tgcctggcta    3300
attttttaat tttttgagac agtttcactc ttgttgccca ggctggagtg caatggtacg    3360
atctcggtgc actgaaaccc caactcctgg gttcaagcga ttctcctgcc tcagcctccc    3420
aagcggctgg gattacaggt gcccgccact acgcccagct aattttttgta tttttagtag    3480
agacagggtt ttatactcta ttggttaggc tggtatcgaa ctcctgacct caagtgatcc    3540
gcgattacag gcgtgagcca ccgcgcccgg cctaattttt taaatttatt gtagagacag    3600
ggtttcacta tgttgctcag gctggtcttg aattcctggg ctcaaacagt cctgaagcct    3660
tggcctccca aagtgctggg attacaggca tgagccactg cacctggaca aaaaagtgtt    3720
atttcttaaa gagaacagaa taaagccatc tcacagtttc ttttttacata ataaaattaa    3780
caaaatacaa tgaaaacaaa tctcataaaa attaaaaatt tttgtgcttc caagggcact    3840
atcaagaaag taaaaagaca actgggagag atatttgcaa atgatgtatc tgataaaggg    3900
actagtattc tgattatata aagaactctt aaaattcaaa aataagacaa ataactcatt    3960
tcaaagtggg ccaaggattg aacagctatt tctccaaaga tctgcaaatg gccaagaagc    4020
acatgaaaag atgcttaata tcattaccga ccagggaagt gcaaatcaaa accacaatga    4080
gctattactt cactccacta ggacacatgt aatcaaaaag tcagctaata ataaatattg    4140
gtgaggatat agagaaattg gatccctcct acattgctgc tggaaatgta aaatggtata    4200
gccacttcag gaaacagttc agaacttcct cgaaaagtta agcatagaat taccatgtga    4260
ctggggaaac cccgtctcta ctaaaaatac aaaaattagc caggcatggt ggcgcatgct    4320
gtaatcccag ttactgggga agctgaggca ggagaatcac ttgaacccag gaggcagagg    4380
ttggagtaag ccgagattgt gccactgcac tccagcctgg gcgacagagc aagactctgt    4440
caaaatataa aaataaaaat aaaataataa taatctgcag tgtcatatcc tcctctgatt    4500
ttgtaggccc aaggcattgc tcatgagaac ctcattcctc tggaaaccct aggtaagtgc    4560
gagtttggca gcaagccgcc tgtgtcttgc aggcttgtga catcacggga ggactgtacc    4620
tgaaggtgcc tcagatgcct tctcttctgc agtatttgct ggtaaggaga cagcagcggc    4680
gaccctgatg cctggaggga aggatgacct ctgtgtcctg ggaaaggaat ggaagcaaga    4740
tggctggtgc tagtactcag gagaagggaa taaatggagg ccttggagtt ccaaggccta    4800
gaagggtggg cttcatgtta ttttttttccc atgttttaaa taaaagtttc ttttgtttgt    4860
ttgttttaca gtgggtgttt cttcccgatc aagatcagag atctcagtta atcctcccac    4920
ccccagttca tgttgactac agggctgctt gcttctgtca tcgaaatctc attgaaattg    4980
gttatgtctg ttctgtgtgt ttgtcaagta agttaatgta cctagttttt ctttttttttc    5040
tatgttgggg ggcaggaaaa cagtttctca gctgtgttgt ttttcagcca ccctattgtt    5100
tctttttttt tttaatttac agtattctgc aatttcagcc ccatttgtac tacgtgcgag    5160
taagtatctt tgagattgtg tgggtggcta atacttcaca gctctagaac attaaaaaat    5220
gttttcctct ctgtaatttc aggacagcct ttaaaatttc tctgcctcca gtgctgaaag    5280
ccaagaaaaa gaaactgaaa gtgtctgcct gaggataaaa tattttcccc atcttttaga    5340
gctgttaata gaaattatat agcagattct ttgttgggaa gactgaaaaa aataaagata    5400
ggtataggat aattttttaat atggtgacct tacagaaaat atttcccaaa catccttttc    5460
atcctgtgct tctggaggac tgatttgttt gagggaatca ttctatgcat tatatcctaa    5520
aatattctat gactggtttc tgtccatgtt gtggctttc atttttttaa tgggatgact    5580
attagtcaaa gtcagcttgt catgactcat cataggcttt ctaacctact ccctgaatcc    5640
gggtcctcat tgtgaaatgc atgccatacg aaatttgaac gtagctttgg aaaaagggac    5700
tatttgtgga gtaatggcat taatcaacat agaacatctt atttgaatca acagttaact    5760
tcagtagtca tgtgaataaa attcttattg tctaaattga gacagcctca gatatttgca    5820
gatatttact ttttgtctga tatcagtaca tatttggaca aagtcatcta ataatagtt    5880
tgtcaccaaa taactacaaa atctcatttt aaatgagtaa ggagaacgtg tacagaagca    5940
aattttcttc aaaatagttg tgggaagagc ttatatgtga aagcttatga ctggttttga    6000
```

6727

```
gggagaactt actggagaaa atggactcta tgttaagtat ggttttcaga tagaattctt  6060
tcctttttta atgaggaaaa aaaatccaca ttaatattga aactgcacct gtaatcccag  6120
cactttggga ggctgaggac agaggattgc ttgagcccag gagttcgaga gcagcctggg  6180
cagcaaagtg agaccccatc tctactaaaa atttaaatgt atttattaaa actgttctct  6240
agaagctttg gactgaatcc caaaagtgtt tataagttca aaagcaaaag tatttgtaat  6300
ttcaacaaca aaaaatgtat ttctttatgt aatcttgaaa ttattaaaag tccttttagc  6360
ttctagcaca tatttgtaca aagagtttaa ggaatggtgg ctggtttggt ttgttttta   6420
aaaatgttta ctgacgaggc cgggcgtggt ggctcacccc tgcaatccca gcactttggg  6480
aggccgaggc aggcagatca caaggtcagg agttcaagat cagcctggcc agtatggtga  6540
aaccctgtct ctactaaaaa tagaaaaatt agccatgcga agtagcaggt gcctgtagtt  6600
ccagctactc gggaggctga ggcaagagaa ttgcttgaat ccaggaggca gaggttgcag  6660
tgagccaaga tagcgcctct gtactccagc ctgggtgaca gagcgagact ctgtatcaaa  6720
aaaaa                                                              6725


<210> 9180
<211> 970
<212> DNA
<213> Homo sapiens

<400> 9180
gaaaactaaa attctgagag cgatagaaga ataagtggag agccatattt tgttcttgga   60
tgtcagtttt cccaaaatca cactgtaaat tcaatttaca atctcagtca gaatatcagg  120
gaggtttttt tttttcctgg cagggtgggg agatttaaaa aagaaattca aggctgagca  180
cggtggctca ctcctgtaat cccaacactt tgggaggcca aggcgggtgg atcacgaggt  240
caggagatcg aaaccaacct ggctaacatg gtgaaacccc gtctctagta caaatacaaa  300
aaatgtcgtg ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg  360
aacccaggag gcagaggttg cagtgagccg agattgcgcc actgcactcc agcctgggca  420
acagagcgag actctgtctc aaaaaaaaaa aaagaagtg ccaagtaacg agatattcat  480
tgtttgttgc ttagcacaaa tgaaaaagct ggcagttccc agggttgatg gtgatgttgg  540
ggattgctta ttctcatggg ttgctgatag gaggataaat tggtaaaaat cttttctggg  600
gtgcattttg gtaatctgtg tcaaaattaa atgttcatat actttagtaa tcactgctta  660
ttttccggag gtaattagag agctgtgcag atggtatatg agggtatcat cagggtattg  720
tttaaaactg agaactggaa actgcttaaa tagtggaaat ttatgaagtc cgcaaggagc  780
atagtatata ttataattca ttgacattag aatatttttt cccacatata ttgtggactg  840
aaaaagcagg ttgcagaatg ctaagtaatc atcttgatac gtgtgagtgt gtgtattttg  900
gatgtgtgtg tattctggat gtgtgtatgt gtgtatattt tggatgtgtg tgtgtttttgg  960
gtgtgtgtat                     °                                   970


<210> 9181
<211> 1521
<212> DNA
<213> Homo sapiens

<400> 9181
gaattctgta gtttcgtttt taaacatttg aggatatttt aggtgattta attcattgta   60
gaacatagac tgcatgattt cacttgtttt agattgagat tgttttgtag cccaggaaat  120
gttttatctt ggtgaatgtt ccatatgtac ttgagaagaa tgtgtattat attgttggtt  180
gtagtgttcc ataaaagtca gtttagctca ttggtagtgg ggcctaaatc atctgtatcc  240
taactgatag tgtgtggttg tgtgtctttg ttttttcttt gtcccatctg cttttttgggt  300
tctttgattt tcttcttttg tttcttcttc tggattaatc aaggatttta taatattcag  360
atttatctcc tctgttgggg ttttagctgt acctctttat tttttaagag ctgttctag   420
ggattacaga atgcattctc aatttatcat aaaatagcaa gaatattata ccaccttaca  480
tgtttcacat gtaataaaac atactttcat atactatttt catcctttgt gctttttattg  540
tcataagttt tgcttctaaa tgtattatag ttattgtatt ttgtgattat ttgtgcttca  600
gaaagttatt ctttgaagaa actaagaaat gagaaaaatt aacatctacc tgtatattca  660
acatctacat atatatttac cattttttgcc attctttatt cctacataaa gatcaaagtt  720
tacatctcat atcattttct ctcagtctga agaacttgat ttaacatttc ttgtattgta  780
ggtgtcttag tgacaaattc tttcagcttc tgttttcagc ttttatctga agataccttt  840
attaatcttt acttttttcta tatattttgt ttgttcgttt agagataagg tcttactctg  900
```

6728

```
ttgcccaggc tggagtccag tggcctgatc ataacccact gcagcctcaa actcctgggc    960
tcaagtgatc ctcccacctc agcctcccaa gtaggtggga ctataggcac acgctaccgt   1020
gcctggctaa tttttaatt tttttggaga gttggggtct cactttgttg cctgggctgg   1080
tctcgtaccc cagggctcaa gcaatcctcc taccccagcc tcctacggtc ctgagattac   1140
aggtgtgagc caccatgcct ggttatttaa aaaaatatgt tttgaataat acagccaatt   1200
ctgttttttt aagctgtcac tatgttctgt atagccacca aaaacaggga attagcaaat   1260
actgaatcat tgttcttagg ggaaatacag acttggctcc tgtaagcctc ttgtcataat   1320
atttttgtta accaatcagt atattacctt gttttatgtg tttttctatt taaagccacc   1380
tggggtacaa aaatacagtt ggatagaagg aataagttct agtatttgat agtacagtag   1440
agaaattata gttaatgatt tattctatat ttcagaatag ctagaagaat tgtaatgttt   1500
ctaacacaaa gaaaagaaaa a                                              1521


<210> 9182
<211> 1641
<212> DNA
<213> Homo sapiens

<400> 9182
cattccttac tgtgaatagt tgctttcata ctacagcagc aatgttgaag agttgtgaca    60
atgaccacat ggcctataag gcctggaata tttgctgtct ggctctacgc agtttaagtt   120
tgctgacccc tgtgcaaact tcgtcaaagg taactttgac ttagtgcgta ctcttgatta   180
gtacccaaac tctctaaagt tagatattaa cttagaaaaa attgataagt ttcaaaaaaa   240
aatttctctt tggtagggaa ggtaactcca agagttaacg gttttcttgc cttgaagggc   300
gttatccagt tttgtatcta tctctgcagt cttatttccc attgacattc ttttttccat   360
tgactgcatg tgtcagtttc tcatgtcctg ctttgagcca cccattgtca ttctgcaggt   420
cccttcatta atgaattaaa taaatcttag acacacgctc actatatatt ccaatgagag   480
tgtttattgt atggagaatt atatgttgtc tccttgaggc ttggcagtgc ctcttgaatg   540
tagtcattta accctcttgg gcctcaggta acttctctgt taagtggaaa taattatccc   600
cagtacctta gccaaattac tgtctcaccc aaataataat tggacatagt tttgtaattt   660
aagttaaaag atgttatgtt tatgaaagag ttttgttagc tgcaaagcgc tatttgttgg   720
atattgcttc ttgaaaaaat acagatctta ggtattaaag aataggtaga agcctgttag   780
gtatgaatta tgaacagata ttcgattctt tgacttctcc attcagaata gttatttta   840
aaaagcaaat atgtaaagat ctttctgctc ttaagcctaa ccactcatct gatgagtgta   900
ctgaaaatag aagtggttta ttgcaatatg tcagagaagt attctactga taaccaccca   960
tacatgaaat cttaaagaag tagttatgag ttggaaattt ctaggttgta atcagaagag   1020
ggagcaaatg acagaataca gctgtgcatt gtttggaagt gggctggaaa gaattcattg   1080
cctctttaat tgaagaaaag caaagagtga cactaatcaa agtaaaagaa gggaagtact   1140
catagctgaa aatggaacta taaattgttt gcttttaga gcaacatcag ttctttgaaa   1200
cccatacagt tccttataat attccaaaac aaactgccat atggaaacct gtttagaaag   1260
gaataatagc actctaccct cctccccagc cactaaattg aaacatacgt gaaaatttaa   1320
tgtagttttt taatcaagct cagaaaattt ttttttttt tgagacggag cctcgctctg   1380
tcgcccaggc tggagtgcag tggcgcgatc tcagctcact gcaagctccg cctcccggtt   1440
tcatgccatt ctcttgcctc agcctcccga gtagctggga ctacagcttg gctagttttt   1500
ttgtattttt ggtaaagaca gggttccacc gtgttagcca ggatggtctc aatctctcct   1560
gacctcgtga tccgcccacc ttggcctccc aaagtgctgg gattaccagc gtgagccacc   1620
gcgcccagcc cagaaaaaaa a                                              1641


<210> 9183
<211> 1641
<212> DNA
<213> Homo sapiens

<400> 9183
cattccttac tgtgaatagt tgctttcata ctacagcagc aatgttgaag agttgtgaca    60
atgaccacat ggcctataag gcctggaata tttgctgtct ggctctacgc agtttaagtt   120
tgctgacccc tgtgcaaact tcgtcaaagg taactttgac ttagtgcgta ctcttgatta   180
gtacccaaac tctctaaagt tagatattaa cttagaaaaa attgataagt ttcaaaaaaa   240
aatttctctt tggtagggaa ggtaactcca agagttaacg gttttcttgc cttgaagggc   300
gttatccagt tttgtatcta tctctgcagt cttatttccc attgacattc ttttttccat   360
```

6729

```
tgactgcatg tgtcagtttc tcatgtcctg ctttgagcca cccattgtca ttctgcaggt    420
cccttcatta atgaattaaa taaatcttag acacacgctc actatatatt ccaatgagag    480
tgtttattgt atggagaatt atatgttgtc tccttgaggc ttggcagtgc ctcttgaatg    540
tagtcatta acctcttgg gcctcaggta acttctctgt taagtggaaa taattatccc    600
cagtacctta gccaaattac tgtctcaccc aaataataat tggacatagt tttgtaattt    660
aagttaaaag atgttatgtt tatgaagag ttttgttagc tgcaaagcgc tatttgttgg    720
atattgcttc ttgaaaaaat acagatctta ggtattaaag aataggtaga agcctgttag    780
gtatgaatta tgaacagata ttcgattctt tgacttctcc attcagaata gttattttta    840
aaaagcaaat atgtaaagat ctttctgctc ttaagcctaa ccactcatct gatgagtgta    900
ctgaaaatag aagtggttta ttgcaatatg tcagagaagt attctactga taaccaccca    960
tacatgaaat cttaaagaag tagttatgag ttggaaattt ctaggttgta atcagaagag   1020
ggagcaaatg acagaataca gctgtgcatt gtttggaagt gggctggaaa gaattcattg   1080
cctctttaat tgaagaaaag caaagagtga cactaatcaa agtaaaagaa gggaagtact   1140
catagctgaa aatggaacta taaattgttt gctttttaga gcaacatcag ttctttgaaa   1200
cccatacagt tccttataat attccaaaac aaactgccat atggaaacct gtttagaaag   1260
gaataatagc actctaccct cctccccagc cactaaattg aaacatacgt gaaaatttaa   1320
tgtagttttt taatcaagct cagaaaattt tttttttttt tgagacggag cctcgctctg   1380
tcgcccaggc tggagtgcag tggcgcgatc tcagctcact gcaagctccg cctcccggtt   1440
tcatgccatt ctcttgcctc agcctcccga gtagctggga ctacagcttg gctagttttt   1500
ttgtattttt ggtaaagaca gggttccacc gtgttagcca ggatggtctc aatctctcct   1560
gacctcgtga tccgcccacc ttggcctccc aaagtgctgg gattaccagc gtgagccacc   1620
gcgcccagcc cagaaaaaaa a                                              1641


<210> 9184
<211> 707
<212> DNA
<213> Homo sapiens

<400> 9184
tatttttagt agagacgagg tttcaccatg ttagccaggc tggtcttgca ctcctgacct     60
caggtgatcc acccgccttg gcctcccagc tcatgctgat attacaggca taagccacca    120
cacctagcca agaaaccatt ctttgaacac aagcaaatat actttggaga aaaatttaat    180
aatcctggca gggctacatt caacataatt ctgttatggg ggaaggcagc atgctttggc    240
tgctcagtga gctatgttct gtacaaccaa gtgaaattgc taaaaaaaga ttctcctgta    300
tacagtaact taaagtgatg cagtctactt aagatcagat ctgagttaca aaatcaaaag    360
tgacagctcc tatgttcttt taaagtccaa tctcttttt tcattgttgt gctccaaatg    420
ccttgagtac ctgatgtaga gtaggtggct aataaatatt ggttgaattt cttgaacgaa    480
tctgttatga aaagatctac tttgctcatc tctgtgcccc aatagcagga gcttgaggag    540
aaggagaaaa tattgggtca gagctttga ttaatatgta tgattctatt aaacgggttc    600
actaaaccaa aaaaggcaaa ggaaacagt taaaccaaga gttcttgagg ttaaagtctt    660
gtgatgatta aaatcatcat cctaagatga tgatgacata aactttc                 707


<210> 9185
<211> 414
<212> DNA
<213> Homo sapiens

<400> 9185
gaggaaaccg ccttcaaatg agctgaatac aggtccctct gctagttttg atcttgtagg     60
tcagtggttc tgaggcatga gtgctaaagg tcctataggt ggcacatgga ctccaccttc    120
ctgcatcacg tgtttccgtt gtgatcattc ctccagatga gtgctcttcc atcactggga    180
agcacctggc ctcatgcatt tctgataggc cttggtgatg tcttaccagt cttaggcttc    240
ccatggattc taatgaggat tcctcaaggt atgggaaagg gataggtggt ccacagaata    300
ttctccccaa gcaagcaagc caaagactga gaattacaga aaaacacttt cttagtatt    360
tttaaatttt aatctttttc tttcatacag ctttatttgt ttcttatctg aact         414


<210> 9186
<211> 414
```

6730

<400> 9186

```
gaggaaaccg ccttcaaatg agctgaatac aggtccctct gctagttttg atcttgtagg      60
tcagtggttc tgaggcatga gtgctaaagg tcctataggt ggcacatgga ctccaccttc     120
ctgcatcacg tgtttccgtt gtgatcattc ctccagatga gtgctcttcc atcactggga     180
agcacctggc ctcatgcatt tctgataggc cttggtgatg tcttaccagt cttaggcttc     240
ccatggattc taatgaggat tcctcaaggt atgggaaagg gataggtggt ccacagaata     300
ttctccccaa gcaagcaagc caaagactga gaattacaga aaaacacttt tcttagtatt     360
tttaaatttt aatctttttc tttcatacag ctttatttgt ttcttatctg aact          414
```

<210> 9187
<211> 707
<212> DNA
<213> Homo sapiens

<400> 9187

```
tatttttagt agagacgagg tttcaccatg ttagccaggc tggtcttgca ctcctgacct      60
caggtgatcc acccgccttg gcctcccagc tcatgctgat attacaggca taagccacca     120
cacctagcca agaaaccatt ctttgaacac aagcaaatat actttggaga aaaatttaat     180
aatcctggca gggctacatt caacataatt ctgttatggg ggaaggcagc atgctttggc     240
tgctcagtga gctatgttct gtacaaccaa gtgaaattgc taaaaaaaga ttctcctgta     300
tacagtaact taaagtgatg cagtctactt aagatcagat ctgagttaca aaatcaaaag     360
tgacagctcc tatgttcttt taaagtccaa tctctttttt tcattgttgt gctccaaatg     420
ccttgagtac ctgatgtaga gtaggtggct aataaatatt ggttgaattt cttgaacgaa     480
tctgttatga aaagatctac tttgctcatc tctgtgcccc aatagcagga gcttgaggag     540
aaggagaaaa tattgggtca gagcttttga ttaatatgta tgattctatt aaacgggttc     600
actaaaccaa aaaaggcaaa ggaaaacagt taaaccaaga gttcttgagg ttaaagtctt     660
gtgatgatta aaatcatcat cctaagatga tgatgacata aactttc                  707
```

<210> 9188
<211> 1262
<212> DNA
<213> Homo sapiens

<400> 9188

```
agtaattata tcttgtagta gcaatttcat atctctactt atagttggga caattaaggc      60
tcagaaaaat ggcaaagctg agattaaaat tcaggatttt ctgatttcta gccaatgtca     120
tgctcatttt ctgtgttaat tttatggctc agggtccagt taaaaacgtc tgaagggagt     180
ggtaagtaca agagagatgg gagttggggg tggggcttga aggagagcac acctggcccc     240
aggtgacaag actgggctcc agccctgcct catcacagtt ggacatgatg gccctgggtc     300
atttgacttt tgaggacctc aggaaaatga gggagcttaa aaaattctat ggttcctaat     360
gaaatactta gggatgaaat tacagttctg ggattgctt gaagacacaa tcagccatgg      420
tttgtcactg ttgatgctga gtaatggata tttggtgttc tattgtgagt ctttggtaca     480
tgtttggaat tttccatgaa aaaaccttct gcttctaaaa tgcacacctt gattcttccc     540
atcgccctcc tactggctgg tcctgtgcag ctcactcatt tctcaggaac agcagcagac     600
tcactactct gaaggaaaga aagccctttg ctttggtctg ttcctaatgt acatattatt     660
agagactttt ccgacaccct ccccattttt tatttcttaa cagctaatac gatagctgtg     720
ctttcataat aaattcaaaa gctgctctct atttctcacc agtttgaatt gtagaaaaga     780
gtacaaaaga ttagagtact ttaaaataaa tctcagctaa ttatacatac aactgcattc     840
actaaatgtg aatattttca ggctttcttt gctaccaagt gccacctgct catgatttaa     900
atgggcacaa atttagttcc attaaacaaa atgcagcaac tcttctccta tagcgcaaac     960
tcctttaggt cctattttga aactgagaag ctaattccag tgttctcttg ttagctctcg    1020
gtccatgtca accaccccac aaggttgttt acttgaatag tttgcagcct tgctttaaaa    1080
gttctagtag gcaaataggt ttgttgatga tgaagtggtt tgtgttttat aagagtcctt    1140
atggtctaga tggcatttga acttgtggtt ccagtgatta ccaggaccct gaattgaaga    1200
atacatgctg tggccttttc agctcaggaa acttttact ttctattgcc aaaaaaaaaa     1260
aa                                                                    1262
```

```
<210> 9189
<211> 2239
<212> DNA
<213> Homo sapiens

<400> 9189
gaaaattatc tgaaattcaa atttcagtgt ccttaagtaa agttctattg gaacatggcc      60
acacatttat ttatatatct tcttgtggct gttttctgct acagctgcag cgtcttatac     120
taaacagact gtatggccca taaagcctca aatatttact ttatgggact cgatggaaac     180
tttactgacc cctgatctca gtgtttcttt taagcattgc aaagatagtt tgcaaaaatg     240
ctatgagagc tctatgatgg cattagatac ctaaatgtag cagctgaaaa aaatttccta     300
aagtggtatt aggcctaaaa aaaagtgatt ctagggctac ttaaacaaga agttttaca      360
gcaagagtta catcctctac tcattttaat gtctaggtaa gccagagctt taaatcctgt     420
attaatttac ctgtgaaaat atttcatatt ctcccttttg tgccgtgtgt gcgttggatt     480
ccccagtggg tgtatagatg aatttataat ttatgtggct ggatggaagc ctgggtaaat     540
acaagcataa acaacatcag gcaatgccag tcgatagact gcgattccag gatgtgttct     600
gtccaggcct gccgttcatt ccaaaggcct gcatttcaaa gctgcaggct tggagctggg     660
actgctggga aggtgggggg cagggttcag aactggttgg cttaggaag gtaccaggag      720
agtgcacctt ctagtacttg aaatgtccct ccattttgag gacacaggag tggcctacct     780
ttcatctaac aaagacaaga gaattgaacg ctgattgtct ttgtctttga agggtttatt     840
gctttacctc ttcacttcac ctggctttgg cacctctgtc atttcttcat ttactgtttt     900
ttctagcata cttttaactt ctttctgtac tttctctttc caactgctgt ccacatgcca     960
cctgtgtata gaatcccaag aaaacataac ccaccattag aattttagtt gctaaactat    1020
ataagaactt tgagctgtag attaacatcc tctaccttcc tttggtgcca tttgtttacc    1080
ccttttttccg aacaaaaaac aatacctgcc cctgttccaa aggtgtctta ctattccaat    1140
aaagaatgca tgcctgggaa taaaaagaag cttagactac tgttccaatg gagctaagtg    1200
ttcaaagaaa ttcctgaatt catttcctgg gggaaaaaat gtggttagtg acctggaaac    1260
tactaacaac ttataaaact caatactctg atggcgactc tgttcgcttt accccttaagg   1320
catcttgaaa ggaaagactt ttgtcagagt tgggcttcta aagttttaat aggaaattga    1380
ggcactttct gtataattca agccaaagat ttttttttttt ctgggtttga atgattggat   1440
aattgcctca attctctgtt ccatgtaatt gagatcactt gactcttctt agtgctaata    1500
aagagatgtt gggattcacg gtttattaac caaacttttc agtttgtgga cctgtcattc    1560
aaaactgcaa acaaggctga tcccatgcaa aatagactac tgcctttatg ctgtactaag    1620
aatcagtccc tcttaaagga tgcatttata accttttatgc aatgaggaaa tttccaggta   1680
gccaattttc tttatagtgc taccagcctt cagcaagctt aaactctgcc ctgcaagcct    1740
gaaaccctgc ttctctaaga ttctacataa caggagatta aacatccaaa tgtgtataat    1800
cgcattctgg acagtatgaa gaagctgtct tggaatattg ttaactatta gaatacttaa    1860
agtgtgcaca tcacccaatt taggatttct tggtaatagt agcctatact ttagaaaatt    1920
aaagaggagg aaggggccgg gcacagcggc tcacacctat aatcccagca ctttgggagg    1980
ccgaggtggg cagatcactt gaggtcagga gtttgagacc agcttggcca acatggagaa    2040
acgccatctc tactaaaaat acaacaaata attagccagg tgtggtggcc tgtgcctgta    2100
atcccagcta ctttggaggc tgaggcaggg aatcgcttga acctgggaag cggaggttgc    2160
agtgagccaa gattgcacca ctgcactcca gctagggtga cagagtgtga ccctgtctcc    2220
aaaaaaaaaa aaaaaaaag                                                  2239
```

```
<210> 9190
<211> 2239
<212> DNA
<213> Homo sapiens

<400> 9190
gaaaattatc tgaaattcaa atttcagtgt ccttaagtaa agttctattg gaacatggcc      60
acacatttat ttatatatct tcttgtggct gttttctgct acagctgcag cgtcttatac     120
taaacagact gtatggccca taaagcctca aatatttact ttatgggact cgatggaaac     180
tttactgacc cctgatctca gtgtttcttt taagcattgc aaagatagtt tgcaaaaatg     240
ctatgagagc tctatgatgg cattagatac ctaaatgtag cagctgaaaa aaatttccta     300
aagtggtatt aggcctaaaa aaaagtgatt ctagggctac ttaaacaaga agttttaca      360
gcaagagtta catcctctac tcattttaat gtctaggtaa gccagagctt taaatcctgt     420
```

```
attaatttac ctgtgaaaat atttcatatt ctcccttttg tgccgtgtgt gcgttggatt    480
ccccagtggg tgtatagatg aatttataat ttatgtggct ggatggaagc ctgggtaaat    540
acaagcataa acaacatcag gcaatgccag tcgatagact gcgattccag gatgtgttct    600
gtccaggcct gccgttcatt ccaaaggcct gcatttcaaa gctgcaggct tggagctggg    660
actgctggga aggtggggg cagggttcag aactggttgg gcttaggaag gtaccaggag     720
agtgcacctt ctagtacttg aaatgtccct ccattttgag gacacaggag tggcctacct    780
ttcatctaac aaagacaaga gaattgaacg ctgattgtct ttgtctttga agggtttatt    840
gctttacctc ttcacttcac ctggctttgg cacctctgtc atttcttcat ttactgtttt    900
ttctagcata ctttttaactt ctttctgtac tttctctttc caactgctgt ccacatgcca    960
cctgtgtata gaatcccaag aaaacataac ccaccattag aattttagtt gctaaactat   1020
ataagaactt tgagctgtag attaacatcc tctaccttcc tttggtgcca tttgtttacc   1080
ccttttttccg aacaaaaaac aatacctgcc cctgttccaa aggtgtctta ctattccaat  1140
aaagaatgca tgcctgggaa taaaaagaag cttagactac tgttccaatg gagctaagtg   1200
ttcaaagaaa ttcctgaatt catttcctgg gggaaaaaat gtggttagtg acctggaaac   1260
tactaacaac ttataaaaact caatactctg atggcgactc tgttcgcttt acccctaaga   1320
catcttgaaa ggaaagactt ttgtcagagt tgggcttcta aagtttttaat aggaaattga   1380
ggcactttct gtataattca agccaaagat ttttttttttt ctgggtttga atgatttggat 1440
aattgcctca attctctgtt ccatgtaatt gagatcactt gactcttctt agtgctaata   1500
aagagatgtt gggattcacg gtttattaac caaacttttc agtttgtgga cctgtcattc   1560
aaaactgcaa acaaggctga tcccatgcaa aatagactac tgcctttatg ctgtactaag   1620
aatcagtccc tcttaaagga tgcatttata accttttatgc aatgaggaaa tttccaggta  1680
gccaattttc tttatagtgc taccagcctt cagcaagctt aaactctgcc ctgcaagcct   1740
gaaaccctgc ttctctaaga ttctacataa caggagatta aacatccaaa tgtgtataat   1800
cgcattctgg acagtatgaa gaagctgtct tggaatattg ttaactatta gaatacttaa   1860
agtgtgcaca tcacccaatt taggatttct tggtaatagt agcctatact ttagaaaatt   1920
aaagaggagg aaggggccgg gcacagcggc tcacacctat aatcccagca ctttgggagg   1980
ccgaggtggg cagatcactt gaggtcagga gtttgagacc agcttggcca acatggagaa   2040
acgccatctc tactaaaaat acaacaaata attagccagg tgtggtggcc tgtgcctgta   2100
atcccagcta ctttggaggc tgaggcaggg aatcgcttga acctgggaag cggaggttgc   2160
agtgagccaa gattgcacca ctgcactcca gctagggtga cagagtgtga ccctgtctcc   2220
aaaaaaaaaa aaaaaaaag                                                2239
```

<210> 9191
<211> 452
<212> DNA
<213> Homo sapiens

<400> 9191
```
gaggggcggt ctccatttgc ttggtaccta gccctgggg tgagttaggg caatttctat    60
attggcttgg tgtgtgaaag ttagataaag gggaaggttg cggctatgtt cttgacaata   120
gttagatatg ctcagggctc agtcctttgc tgtctccaag aattagctag tcctgggagt   180
ctcttccctg ccagcaaaat ttataagata ccagaacatc ataagataca gaaaaaaaac   240
cgtgatgaat gcaacttcac aatattgcct ccttttttcct tgcactgcct ttccctgatc   300
cctctaccac tttggttatt gtgacagcaa caagattcat ctttcaacca tctacaccag   360
gggtcagcaa actatgggct gatggccaga tctagccagc tgcttgtttt gtatggccca   420
caaggtaaca atgctagaaa aaaaaaaga ag                                   452
```

<210> 9192
<211> 501
<212> DNA
<213> Homo sapiens

<400> 9192
```
ctgcttggag aaaatgaaag ttagcaaaaa tcacctttct ccagatgaat cgttgtggga    60
aagtaagttt agcagaatgt gctgtcaact tggttgagat aaggcagttg gaggactggc   120
attattaaat tttctgtggt gcaattaggg gtcctcctaa gtgcaggtga gctgtggtga   180
ggagttaatg tatgctcagt aaatatgtgc tgaatgcatg agcaaggcag ttattaatct   240
ggttatcatt ggggattcac aaatttcact ttatatcttg taacaaatct caaattgtgc   300
ccctgaaaca tctggatttt gaaaagtgat tccaatccat tgtcatgggt ggcactattc   360
```

6733

```
ccagaaatca acaaaggaaa tccaagccac tgagggtttt taaaaaattt tgagtattaa    420
ctagactgtt atactcttct gtgtttatat gtagtaccaa taatcaagac aataaatcca    480
tctttaacaa taatataaaa a                                              501


<210> 9193
<211> 501
<212> DNA
<213> Homo sapiens

<400> 9193
ctgcttggag aaaatgaaag ttagcaaaaa tcacctttct ccagatgaat cgttgtggga     60
aagtaagttt agcagaatgt gctgtcaact tggttgagat aaggcagttg gaggactggc    120
attattaaat tttctgtggt gcaattaggg gtcctcctaa gtgcaggtga gctgtggtga    180
ggagttaatg tatgctcagt aaatatgtgc tgaatgcatg agcaaggcag ttattaatct    240
ggttatcatt ggggattcac aaatttcact ttatatcttg taacaaatct caaattgtgc    300
ccctgaaaca tctggatttt gaaaagtgat tccaatccat tgtcatgggt ggcactattc    360
ccagaaatca acaaaggaaa tccaagccac tgagggtttt taaaaaattt tgagtattaa    420
ctagactgtt atactcttct gtgtttatat gtagtaccaa taatcaagac aataaatcca    480
tctttaacaa taatataaaa a                                              501


<210> 9194
<211> 452
<212> DNA
<213> Homo sapiens

<400> 9194
gaggggcggt ctccatttgc ttggtaccta gccctggggg tgagttaggg caatttctat     60
attggcttgg tgtgtgaaag ttagataaag gggaaggttg cggctatgtt cttgacaata    120
gttagatatg ctcagggctc agtcctttgc tgtctccaag aattagctag tcctgggagt    180
ctcttccctg ccagcaaaat ttataagata ccagaacatc ataagataca gaaaaaaaac    240
cgtgatgaat gcaacttcac aatattgcct cctttttcct tgcactgcct ttccctgatc    300
cctctaccac tttggttatt gtgacagcaa caagattcat ctttcaacca tctacaccag    360
gggtcagcaa actatgggct gatggccaga tctagccagc tgcttgtttt gtatggccca    420
caaggtaaca atgctagaaa aaaaaaaga ag                                   452


<210> 9195
<211> 3690
<212> DNA
<213> Homo sapiens

<400> 9195
gccttcctga ccctagatgg gctttgtaaa aagagcaagt cgtgtgtgcc agcctgtgca     60
gcagtgaggg cacaggcagc accagggtcc cgggtgtgtg ggtgctgccc cagcttgcag    120
tgtggtctcc tcggtgctgg ccacagctgt gggtccccag gaatattgtg ctgcaggtct    180
tagacagatt tgggtactac tggttctctg ttcagcgtgg cctggacagt ccacagatgg    240
tagtagacca tggggtgttg agatgcaagg agactctgcc gttctttcac attctgcttt    300
tgctcctgac agcttaggaa agctctcttt gaaactttgg tatgtgtgga cctgagattg    360
aatgtatctg aaaggttgct aatttctcac tgtccttgct tcccaggacg ccaggaaagc    420
atgtgcagat gcaactctct ctcaggtaag agcccactga gtcacgcaga gccatctgcc    480
tgtgaggagg ctagcacggc acccacacct ggagcctcgg gagggctctg cttgcattct    540
ctgttgcgca gtgaggatgc caagccactg cttttattaa gaagtcattc tgatggtagg    600
cataggaaat agaggggctt attgagataa aaatgagata tctcaagcct tgaataatca    660
tctacctgtt acagagggta atagttgtaa aatattgtta ttgtcttaag atattttgaa    720
gctcctctcc tcaacagaat ctgcctcaga acttctattt ctaatatcca atttgataat    780
acctcaaaaa gttaaacata gaattattgt atgactcagc agttctgcca ttaaatatat    840
gcccaacagg attgaacact gcttttcaaa cacacacatg tacatagcag caccattcac    900
aatagccaaa atgtagaaac aaccaaaatg tgcataaatg aatgagtgga gaaacaaatt    960
gtggtgtctc tgtgccctgg agtattatca gccattaaat ggacgtcagt acagtcagag   1020
```

```
gctgcaacgt ggataaaccc cataaatatt acgatagtga gagaagccaa acaaatggct   1080
atgtattgtt tagttctatt tatatgaaat atctagaata gtaacattca ctgagacaga   1140
gtggactagt ggccagcagg ggtgttaggg gagagaggga gaggaagtga acagggagtg   1200
actgctgaat caatgtctgg tctccttttg gaagatggtt tggaactaga tggtggcagt   1260
ggttttacaa caatgagtgt actaaatgcc actgaactgt agactttaaa gtgattaatt   1320
ggatgttacg tgaacttcac cttattaaaa aaatgaagtc catcccagca ctttgggagg   1380
ccgaggcagg tggatcactt gaggtcagga gttcgagacc agcctaacca acatggtgaa   1440
accctgtccc tactaaaata caaaaattag ccaggcatgg tggcacacac ctgtaatccc   1500
agctactcag ggggctgagg caggagaatt gcttggaccc gggaggcaga ggttgcagtg   1560
agcagagatc gcaccactgc actccagcct gggagacaga gcgagactcc atcttaaaaa   1620
aaaaaaaaaa aaaaaaagat aataaaaata aagtccaaat aattggacag aaatgtgaaa   1680
gaaaaactat attcctactt ctactgaaga tgattaagtt ttttacattg tctaaatgct   1740
ttaggggatg tgctttaatt gaggttaaat tgtaagttaa agaaaaaaaa attaggctac   1800
atagaattac ctgaatttca attctgagaa gcactttgga ctgtccgttt ttaaaaccca   1860
ctattgtaat ccacttactc cgtttgccaa cctaaactca ttaacatcag tgtctatatg   1920
taggatgggc tcagcaggtg tgtgtacagc tggtgctcca agtgatggtc gtgcagaagc   1980
aggtgtcatg caggcccaca catagcctga cataggaacc agctattaaa ttgtggtgtg   2040
ggacatctgt gtggtgtcat aagaagagtt gcgagatctc aaagaactca gagacctagg   2100
aggagatggt cctggatgga cagggagagg aggaaggaag caggaaggga acagcaagtg   2160
cttcaaggct ggccatgttc gtgtgcgtgc attggagggc agggcacaca ggttcctgat   2220
gaccagccag actgagactt ggtaagaggt acggaagggg ttcagtgcag aatgccacag   2280
tggaagccac tggagaactg tgggaagggc tgggaagagg taggcacagt gggcgagcca   2340
acagccttga caaggatggg tgatgaggag aatcgtttaa tcacagatgt tgatttacag   2400
aaatgttttt attttcaaga tcacaaacaa catcgaccca gtgggaagaa tccaaatgcg   2460
cacgaggagg acactgcggg ggcacctggc caagatctac gccatgcact ggggcacaga   2520
ctccaggtag gcgtgggcat gagcaggatg ctgcttgtta cattcagggg ctgctctgtt   2580
gtcctagggg aaaagtacct gaacccattt gctgtgctgt gcagtgaaga aattaggaag   2640
ttgaatcaga actctgggca cgcaaggtgc agcgttcaca ggtgcatatt ccctgtccag   2700
ttttccactt acctgggctg aaagaacact gccatttctt cactgtctga atcacattaa   2760
tacaagttct gatttttctt tctcccttct cctgtctctt tcagtttcta gacctctgtc   2820
ttcccagttc tactgcatcc tacttatgtg aactggggaa gttacctctc tgtgcctgtt   2880
tctcaagggc tggttggccc tcgccctctt gtgatgtcag tgccctggct caggaaatca   2940
cagaacctgc cccgaggatc ctgagggatt aagtgtattg agccttagaa cagcattgtg   3000
ctgtgtgtgc tttgctgcgg cagacacacg ggaatgcgct gtgagctgct ctcaccattc   3060
tctcatctgg cctgtctgcc ctgccttcct ttggtttacc atcccaagag ataattccct   3120
tcatgggctc ctatttgttc ttttcttttc tctttttttt tttttttta aagacggagt   3180
ctcactgtgt tgcccagcct ggagtgcggt ggggcaatct cggctcactg caagctccgc   3240
ctcccgggtt cacgccattc tcctgcctca ccctccctag tagctgggac tacaggcgcc   3300
tgccaccaca ctggctaatt tttttgtatt tttagtagag atggggtttc accatgttag   3360
ccaggatggt ctggatctcc tgacttcacg atccacccgc ctcggcctcc caaagtgatg   3420
ggattacagg cgtgagccac tacgcccagc ctcttttttt ctttttttt tttttttttt   3480
ttttgagaca gggtctcact cagtcatgct ggagtgcagt ggtgtgatca tatctcactg   3540
cagcctcgac gtcctaggct ccagtaaccc ttcctactca gcctcccaag tggcataggc   3600
cacaggcatg tgccaccatg cctggctaat attttttggt tttttacaga gacagggtct   3660
ccctttgttg ctgacactgg tctcaaactc                                    3690
```

<210> 9196
<211> 142
<212> DNA
<213> Homo sapiens

<400> 9196

```
cgggcgcctg tagtcccagc tactcgggag gctgaggcag gagaatggcg tgaacccagg    60
aggtggagct tgcagtgagc cgagattgtg ccactgaact ccagcctggg cgacagagcg   120
agactctgtc tcaaaaaaac aa                                            142
```

<210> 9197
<211> 1202
<212> DNA

6735

<213> Homo sapiens

<400> 9197
```
aagaaaagaa aagaaaatat aaggatgtaa aagaagcaat ttgcttgcac atctgaatat        60
ccttcttgtg cctccatttt cactcttgaa aactgaaagc aatttgactt ttatttttgt       120
ttttctaaag aacagctagg tgaaaggagg ttaagctgat tgtcactctg cctgcccact       180
acctactccc caccatggtg tttcatgaaa catccccacc acctgaagtg atctttttaa       240
tccttgtgat agtaaatgca ttgataatta acaggaaaaa catgttttta aataatctac       300
aaatgagaac ccaaatagta gtgttttgtt tgacagaagt aaatcaaata ttatggttta       360
aatataatgc aaaatttcag gacagttaat ttggacttcc cttaccctaa gagggttttt       420
cttataataa ggagaagagg tgtggttcaa agaaaattaa gagacaaaac cttcaggtac       480
ataatgcatg aaaatcttta aatgcctgca aaaattaagt tctgttataa taccagccaa       540
ttctgaatta gccaatgccc taaaagcatc taacaattta aggttatctt atgagtccta       600
tgaaaacaat tatttgttgc taaatttgag tttttagctac caacgccatg tttacgtgac       660
aagaaattgt tttggccctg tggtttatga cgtgctgctg ataagcatt tatgtaaaac        720
tgagtatttc aaagagaacc atttacaatt ggaatttcca cctgtgtggc tgtttgcaga       780
cctacctctg tcttccattt tgcatcctgt cagtgctata attagtttga tcactttgtc       840
ttgttttttca gtgtctacaa ttatagctta ttcactatgt tctaactatt taaaaataat       900
gggccgggcg cggtggctca tgcctgtaat cccagcactt tgggaggccg aggtgagcag       960
atcacaaggt caggagatcg agaccatcct ggctaacaca gtgaaacccc gtctctacta      1020
aaaatacaaa aaaattagtc gggcatggtg gcgggcgcct gtagtcccag ctactcggga      1080
ggctgaggca ggagaatggc gtgaacctgg gaggcagagc ttgcagtgag ccaagattgt      1140
gcccctgcac tccagcctgg gcaacagagc gagactctgt ctcaaaaaaa aaaaaaaaaa      1200
aa                                                                     1202
```

<210> 9198
<211> 184
<212> DNA
<213> Homo sapiens

<400> 9198
```
cgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg        60
aacctgggag gcggagcttg cagtgagccg agatcgcgcc actgcactcc agcctgggcg       120
acagagcgag agtccgtctc aaaaaaaaaa aaaaaaaaga aagaaaaaa gaacaaacaa       180
cagc                                                                    184
```

<210> 9199
<211> 143
<212> DNA
<213> Homo sapiens

<400> 9199
```
gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacctgg gaggcggagc        60
ttgcagtgag ccgagatcgc gccactgcac tccagcctgg gcgacagagc gagactccgt       120
ctcaaaaaaa aaaaaagaa atg                                                 143
```

<210> 9200
<211> 183
<212> DNA
<213> Homo sapiens

<400> 9200
```
aatacaaaaa attagccggg tgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc        60
tgaggcagga gaatggcgtg aacccgggag gtggagcttg cagtgagctg agatcgtgcc       120
actgcactcc agcctgggcg acagagcgag actccgtctc aaaaaaaacc cacaaacaac       180
aaa                                                                     183
```

<210> 9201
<211> 175
<212> DNA
<213> Homo sapiens

<400> 9201
cgggcgtagt ggcgggcgcc tgtagtccca gctacttggg aggctgaggc aggagaatgg   60
cgtgaacccg ggaggcggag cttgcagtga gccgagattg cgccactgca ctccagcctg   120
ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa atcac   175

<210> 9202
<211> 162
<212> DNA
<213> Homo sapiens

<400> 9202
agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg   60
agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa   120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagaaca aa   162

<210> 9203
<211> 193
<212> DNA
<213> Homo sapiens

<400> 9203
aaaaattagc cgggcgtggt ggcgggcgcc tgtagtccca gctactcgag aggctgaggc   60
aggagaatgg cgtgaacccg ggaggcggag cttgcagtga gccgagatcg cgccactgca   120
ctccagcctg ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaga   180
tcagaaaaaa ata   193

<210> 9204
<211> 1209
<212> DNA
<213> Homo sapiens

<400> 9204
aagaaaagaa aagaaaatat aaggatgtaa aagaagctat ttgcttgcac atctgaatat   60
ccttcttgtg cctccatttt cactcttgaa aactgaaagc aatttgactt ttatttttgt   120
ttttctaaag aacagctagg tgaaggagg ttaagctgat tgtcactctg cctgcccact   180
acctactccc caccatggtg tttcatgaaa catccccacc acctgaagtg atcttttttaa   240
tccttgtgat agtaaatgca ttgataatta acaggaaaaa catgtttta aataatctac   300
aaatgagaac ccaaatagta gtgtttttgtt tgacagaagt aaatcaaata ttatggttta   360
aatataatgc aaaatttcag gacagttaat ttggacttcc cttaccctaa gagggttttt   420
cttataataa ggagaagagg tgtggttcaa agaaaattaa gagacaaaac cttcaggtac   480
ataatgcatg aaaatcttta aatgcctgca aaaattaagt tctgttataa taccagccaa   540
ttctgaatta gccaatgccc taaaagcatc taacaattta aggttatctt atgagtccta   600
tgaaaacaat tatttgttgc taaatttgag ttttagctac caacgccatg tttacgtgac   660
aagaaattgt tttggccctg tggtttatga cgtgctgctg gataagcatt tatgtaaaac   720
tgagtatttc aaagagaacc atttacaatt ggaatttcca cctgtgtggc tgtttgcaga   780
cctacctctg tcttccattt tgcatcctgt cagtgctata attagtttga tcactttgtc   840
ttgtttttca gtgtctacaa ttatagctta ttcactatgt tctaactatt taaaaataat   900
gggccgggcg cggtggctca tgcctgtaat cccagcactt tgggaggccg aggtgagcag   960
atcacaaggt caggagatcg agaccatcct ggctaacaca gtgaaacccc gtctctacta   1020
aaaatacaaa aaaattagtc gggcatggtg gcgggcgcct gtagtcccag ctactcggga   1080
ggctgaggca ggagaatggc gtgaacctgg gaggcagagc ttgcagtgag ccaagattgt   1140
gccactgcac tccagcctgg gcaacagagc gagactctgt ctcaaaaaaa aaaaaaaaaa   1200
aaaaaaaaa   1209

6737

```
<210> 9205
<211> 187
<212> DNA
<213> Homo sapiens

<400> 9205
aaaaatacaa aaaattagcc gggcgtcgtg gcgggcgcct gtggtcccag ctactcggga      60
ggctgaggca ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagatcgc     120
gccactgcac tccagcctgg gcgacagagc gagactccgt ctcaaaaaaa aaaaaaaaaa     180
aaagggg                                                                187


<210> 9206
<211> 153
<212> DNA
<213> Homo sapiens

<400> 9206
cccagctact cgggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca      60
gtgagccgag atcgcgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa     120
aaaaaaaaaa aaaaaaaga aagcagtggg gcc                                   153


<210> 9207
<211> 193
<212> DNA
<213> Homo sapiens

<400> 9207
cgggcgtggt agcgggcgcc tgtagtccca gctactcggg aggctgaggc aggagaatgg      60
cgtgaacccg ggaggcggag cttgcagtga gccgagatcg cgccactgca ctccagcctg     120
ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaattgac     180
tcctaatcaa aaa                                                        193


<210> 9208
<211> 136
<212> DNA
<213> Homo sapiens

<400> 9208
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga ttgtgccact      60
gcactccagc ctgggcgaca gagtgagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa     120
aaaaaaaaaa aaaaaa                                                     136


<210> 9209
<211> 150
<212> DNA
<213> Homo sapiens

<400> 9209
ggcgcctgta gtcccagcta ctcgggaggc tgaggcagga gaatggcgtg aacccgggag      60
gcggagcttg cagtgagctg agatcgcgcc actgcactcc agcctgggcg acagagcgag     120
actctgtctc aaaaaaaaaa aagaattggc                                     150


<210> 9210
<211> 142
```

<212> DNA
<213> Homo sapiens

<400> 9210
cccagctact caggaggctg aggcaggaga atggcgtgaa cccgggaggc ggagcttgca   60
gtgagccgag atcccgccac tgcactccag cctgggcgac agagcgagac tccgtctcaa   120
aaaaaaaaaa aaaaaaaatg ga   142

<210> 9211
<211> 181
<212> DNA
<213> Homo sapiens

<400> 9211
caaaagttag ccgggcgtag tggcgggcgc ctgtggtccc agctactcgg gaggctgagg   60
caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg agccgagatc gcgccactgc   120
actccagcct gggtgacaga gcgagactcc gtctcaaaaa aaaaaaaaaa aaaaaagat   180
t   181

<210> 9212
<211> 166
<212> DNA
<213> Homo sapiens

<400> 9212
ggcgtgcgcc tgtagtccca gctactcggg aggctgaggc aggagaatgg cgtgaacccg   60
ggaggcggag cttgcagtga gccgagatcg tgccactgca ctccagcctg ggtgacagag   120
caagactccg tctcaaaaaa aaaaacaaa aaaacatgt aggcag   166

<210> 9213
<211> 379
<212> DNA
<213> Homo sapiens

<400> 9213
ggatatgagc ctatatagtt gccttattgt gcaagcttct acatttttca tgaagtggtc   60
catgaagtgg gctgtgaaaa gttaaagaca tgtattgtaa tccctagagt aaccactaaa   120
taaataatgc aaagaagaat ggctaaaaag gcaatagtaa aatattttaa ttctaaaata   180
atattcaaat aatttgttaa aatgcagaag aacaaaaaaa aagctagtat aattacaata   240
ataaatgat agacccaaac caaaccatat aaaccaaaga taaacctgat aatttgttgc   300
cctgttaata acatttaaat tgttatctgc ttgggaattc tacttttttt tttttttttt   360
gagacattat cttactctg   379

<210> 9214
<211> 268
<212> DNA
<213> Homo sapiens

<400> 9214
cggccgaatt ctgccctccg ctaacgagct atagctttgt ggaaatgggc gagtggcgtg   60
cccttgtgag cctcaggggc gcatctgtaa aatgggcata actgtcatgc ctgtctttaa   120
gaacagcctt gggggtaaat gagtggaact catggaaaga tctcagccca caaccttcca   180
cagaacaggc gcttctcaca cagtaagtag caggagtgca gaggctgcag gcatgaatcc   240
agccagactg cctgggttca agtcccag   268

<210> 9215

<211> 368
<212> DNA
<213> Homo sapiens

<400> 9215
```
ggcatgggca aggacttcat gtctaaaacg ccaaaagcaa tggcaacaaa agacaaaatt      60
gacaaatggg atctaattaa actaaagagc ttctgcacag caaaagagtc taccatcaga     120
gtgaacaggc aacctataca atgggagaaa aattttgcaa tctactcatc tgacaaaggg     180
ctaatatcca gaatctacag tgaactcaaa caaatttaca agaaaaaaac aaacaacccc     240
atcaaaaagt gggcaaagta tatgaacaga cacttctcaa aagaagacat ttatgcagct     300
aaaagacaca tgaaaaaatg cccatcatca ctggccatca gagaaatgca aatcaaaacc     360
acaatgag                                                              368
```


<210> 9216
<211> 4704
<212> DNA
<213> Homo sapiens

<400> 9216
```
tattattata ctttaagttt cagggtacat gtgcacaatg tgcaggtttg ttacacatgt      60
atacatgtgc catgttggtg tgctgcaccc atcaactcgt catttagcat tagatatatc     120
tcctaatgct atccctcccc actccccta ccccacaaca gtccccggtg tgtgatgttc      180
cccttcctgt gtccatgtgt tctcattgtt caattctcat ctatgagtga gaacatgtgc     240
tgtttggttt tttgtccttg caatagtttg ctgagaatga tggtttccag cttcatccat     300
gtccctacaa aggacatgaa ctcatccttt tttatggctg catagtattc catggtgtat     360
atgtgccaca ttttcttaat ccagtctatc attgttggac atttcggttg gttccaagtc     420
tctgctattg tgaatagtgc cgcaataaac atacatgtgc atgtgtcttt atagcagcat     480
gatttacaat ccttgggta tataccagt aatgggatgg ctgggtcaaa tggtatttct     540
agttctagat ccctgaggaa tcgccacacc gacttccaca atggttgaac tagtttacag     600
tcccaccaac agtgtaaaag tgttcctatt tctccacatc ctctcagcac ctgttgtttc     660
ctgactttt aatgatctcc attctaactg ttgtgagatg gtatctcatt gtggttttga     720
tttgcatttc tgatgatggc cagtgatgat gagcattttt tcatgtgttt tttggctgca     780
taaatgtctt cttctgagaa gtatctgttc atatcctttg cccactttt gatggggttg     840
tttgtttttt tcttgtaaat ttgtttgagt tcattgtaga ttctggatat tagcccttg     900
tcagatgagt aggttgcaaa aactttctcc cattctgtag gttgcctgtt cactctgatg     960
gtggtttctt ttgctgtgca gaagctcttc agtttaatta gatcccattt gtcaattttg    1020
gcttttgttg ccattgcttt tggtgtttta gacatgaagt tcttacccat gcctatgtcc    1080
tgaatggtat tgcctaggtt ttcttctagg gtttttatgg tttaggtct aacatgtaag    1140
tctttaatcc atcttgaatt aattttttgta taaggtgtaa ggaagggatc cagtttcagc    1200
tttctacata tggctagcag gttttcccag caccatttat taaataggga atcctttccc    1260
cattgcttgt ttttgtcagg tttgtcaaag atcagatagt tgtagatatg tgacattatt    1320
tctgagggct ctgttctgtt ccattggtct atatctctgt tttggtacca gtaccatgct    1380
gttttggtta ccatagcctt gtagtatagt ttgaagtcag gtagtgtgat gcctccagct    1440
ttgttctttt ggcttaggat tgacttggca atgtgggctc ttttttggtt ccatatgaac    1500
tttaaagtag ttttttccaa ttctgtgaag aaagtcattg gtagcttgat gggaatggca    1560
ctgaatcttt aaatgacctt gggcagtatg gccattttca cgatattgat tcttcctacc    1620
catgagcatg gaatgttctt ccatttgttt gtatcccctt ttatttcatt gagcagtggt    1680
ttgtagttct ccttgaagag gtccttcaca tcccttgtaa gttggattcc taggtatttt    1740
attctctttg aagcaattgt gaatgggagt tcactcatga tttggctctc tgtttgtctg    1800
ttattggtgt ataagaatgc ttgtgatttt tgcacattga ttttgtatcc tgagactttg    1860
ctgaagttgc ttatcagctt aaggagattt gggctgaga tgatgggggtt ttctagatat    1920
acaatcatgt catctgcaaa cagggacaat ttgacttctt cttttcgtaa ttgaatgccc    1980
tttatttcct tctcctgctt gattgccctg gccagaactt ccacactatg ttgaatagga    2040
gtggtgagag agggcatccc tgtcttgtgc cagttttcaa agggaatgct tccagttttt    2100
gcccattcag tatgatattg gctgtgggtt tgtcatagct agctcttatt attttgagat    2160
acatcacatc aatacctaat ttattgagag tttttagcat gaagcattgt tgaattttgt    2220
caaaggcttt ttctgcatcc attgagataa tcatgtggtt tttgtctttg gttctgttta    2280
tatgctggat tacgtttatt gattttcgta tgttgaacca gccttgcatc ccagggagga    2340
agcccactag atcatggtgg ataaacttt tgatgtgctg ctgtatttgg tttgccagta    2400
ttttattgag gattttttgca tcaatgttca tcaaggatat tggtctaaaa ttctctttt    2460
```

```
tggttgtgtc tctgccaggc tttggtatca ggatgattct ggccacataa aatgagttag    2520
ggaggattcc ctcttttct attgattgga atagtttcag aaggaatggt accagctcct    2580
ccttgtacct ctggtagaat tcggctgtga atccatctgt tcctggactt tttttggttg    2640
gtaagctatt gattatttcc tcaatttcag tgcctgttat tggtatattc agagattcaa    2700
cttcttcctg gtttagtctt gggaggatgt atgtgtcaag gaattatcc atttcttcta     2760
gattttgtag tttatttgca tagaggtgtt tatagtattc tctgatggta gtttgtattt    2820
ctgtgggatc ggtggtgata tccccttat cattttttat tgcgtctatt tgattcttct     2880
ctcttttctt ctttattagt cttgctgtct atcaattttg ttgatctttt caaaaaacca    2940
gctcctgaat tcattaattt tttgaagggt tttttgtgtc tctatttcct tcagttcttc    3000
tctgatctta gttatttctt gccttctgct agcttttgaa tgtgtttgct cttgcttctc    3060
tagttctttt aattgtgatg ttagggtgtc aatttttagat cttcctgct ttctcttttg    3120
ggcatttagt gctataaatt tccctctaca cactgctttg aatgtgtccc agagattctg    3180
gtatgttgtc tttgttctca ttggtttcaa agaacacctt tatttctgcc ttcatttcgt    3240
tatgtaccca gcagtcattc aggagcaggt tgttcagttt ccatgtagtt gagtggtttt    3300
gagtgagttt cttaatcctg agttctagtt tgattgcact gtggtctgag agacagtttg    3360
ttataatttc tgttctttga catttgctga ggagtgcttt acttccaact atgtcaattt    3420
tggaataggt gtggtgtggt gctgaaaaga atgtatattc tgttgatttg gggtggagag    3480
ttctgtagat gtctattagt tccgcttggt ttagagctga gttcaattcc tgggtatcct    3540
tgttaacttt ctgtcttgtt gatctgtcta atgttgacag tggggtgtta aagtctctga    3600
ttattattgt gtaggagtct aagtctcttt gtagttcact aaggacttgc tttatgaatc    3660
tgggtgctcc tgtattgggt gcatatatat ttaggacagt ttgctttct tgttgaattg     3720
atccctttac cattatgtaa tggccttctt tgtctctttt gatctttgtt ggtttaaagt    3780
ctgttttatc agagactagg attgcaatcc ctgcctttt ctgttttcca tttgcttggt     3840
agatcttcct ccatcccttt attttgagcc tatgtgtgtg tctgcacgtg agatgggttt    3900
cctgaataca gcacactgat gggtcttgac tctttatcca atttgccagt ctgtgtcttt    3960
taattggagc atttagccta tttacattca aagttagtat tgttatatgt gaatttgatc    4020
ctgtcattat tatgtcagtt ggttattttg ctcattagtt gatgcagttt cttcctagcc    4080
tcgatggtct ttacaatttg gcatgttttt gcagtggctg gtactggttg ttcctttcca    4140
tgtttagtgc ttcttccttc aggagctctt ttaggacagg cctggtggtg acaaaatctc    4200
tcagcatttg cttgtctgta aagtatttta tttctccttc acttatgaag cttagtttgg    4260
ctggatatga aattctgggt tgaaaattct tttctttaag aatgttgaat attgcccccc    4320
actctcttct ggcttgtaga gtttctgcca agagatcagc tgttagtctg atgtgcttcc    4380
ctttgtgggt aacccgacct ttctctctgg ctgcccttaa catttttcc ttcatttcaa     4440
ctttggtgaa tctggcaatt atgtgtcttg gagttgctct tctcgaggat tatctctgtg    4500
gtgttctctg tatttcctga atttgaatgt tggcctgcct tgctagattg gggaagttct    4560
cctggataat atcctgcaga gtgttttcca acttggttcc attctccccg tcactttcag    4620
gtacaccaaa cagacgtagg tttggtcttt tcacatagtc ccatatttct tggaggcttt    4680
gtttcttttt attctttttt ctct                                           4704
```

<210> 9217
<211> 1658
<212> DNA
<213> Homo sapiens

<400> 9217

```
tacacaagcc tccacccagc ttctaattgt ctcactgaga acagacaaaa ctccagtaga     60
atccttgaat gacagctaat tgtctccaga aaaaatccaa aattgcctcc ctcccttaat    120
tgtagtgcag catgattctg ttttttctgct gggcccctat ttgcttcttt ctgtgcaatg    180
aatcattgaa agagtgacca ccacggactt ggagaatctt tgtagctttt agtctgtgtt    240
tgggtgtggc tggagagaca aattaacaca cagagccgga ccttgaaggg gaaggtcctc    300
atttgtctca gattgggatc atttggggaa tcagaaaatg tttatatcag aaaagaagag    360
aagtcaatgt gtttcgcagg tttgtggttt tttgaaggag aaacatctag attctagtcc    420
tgttcctctg cctccttctt aggtgatgtt agacaaaata attcacctct ctgagtcaat    480
ttgcttatct gaaaaatagc aataacaaca gcactcattt tactagggca tgtgaataaa    540
cagatttttt tcccattgag tggcaggtat ttattgagtg cctactatgt gccaggcacc    600
atcctactct ctggggatac agcagtgaac aaaacagacg cacacctagt gatgagggat    660
ggagtaaagc ccttagccga tgccaggaca gaggacatga gtcacctgta gtcgctgcca    720
ctgctgctat ttcatggcta catttttgacc cctgtggacc cactgaaacc tcctcactgc    780
ctcacaggca gaacaaggac agggtcttgg ccaccaagtt tactcacttg agctgcattt    840
agattattct tccagctagg ccatgacagt aggtagtggc agctctctgt aaagatgagg    900
```

6741

```
ggtccccagc tcggacccct ggtttcctcc acctgcctgg accttacagt ggtagccagg      960
tgtgtcctgc tgactgggaa gctccttacc tgggtgcttg aagtatggct ccttagcatg     1020
tgtggagaga aggctattat gatagcaacc tgcaggggtg ggatgtgtac cagaccttca     1080
ccctggaact cccgaggaag tgcctgcaga ttgcctggca ggtcttattc gggtgatgta     1140
gagcagaacg ctggggccag gttctgaagt cagacccctg gactcaactc acgcacaact     1200
ccttacctcc aaactgtgtg gccttggtca ggggaactga cttctctgag cttcattttc     1260
ttcatcttaa aaaaaaagg agaatcacac cacctacccc atggagttgt tatgaggcag     1320
agagatgtga tataaagcat gtacttggcc aggcacagtg gctcacgcct gtaatcccag     1380
cactttggga ggccgaggca gttggatcac ttgaggtcaa gagttcgaga ccagcctggc     1440
caacatggtt gaaaccccat ctctaaaaca ctaaaagtag ctgagcatgg tggcacacac     1500
ctgtagtccc agctacttgg gaggctgagg tgagagaatt gcttgaaccc aggaggcgga     1560
ggttgagtgc accgagattg tgccactgca ctccagcctg ggtgacagag cgagaccctg     1620
tctcaaataa ataaataaat aaataaataa ataatgaa                              1658
```

<210> 9218
<211> 1659
<212> DNA
<213> Homo sapiens

<400> 9218
```
tacacaagcc tccacccagc ttctaattgt ctcactgaga acagacaaaa ctccagtaga      60
atccttgaat gacagctaat tgtctccaga aaaaatccaa aattgcctcc ctcccttaat     120
tgtagtgcag catgattctg tttttctgct gggcccctat ttgcttcttt ctgtgcaatg     180
aatcactgaa agagtgacca ccacggactt ggagaatctt tgtagctttt agtctgtgct     240
tgggcgtggc tggagagaca aattaacaca cagagtcgga ccttgaaggg ccaaggtcct     300
catttgtctc agatcgggat cattcgggga accagaaaat gtttatatca gaaaagaaga     360
gaagtcaatg tgtttcgcag gtttgtggtt ttttgaagga gaaacatcta gattctagtc     420
ctgttcctct gcctccttct taggtgatgt tagacaaaat aattcacctc tctgagtcaa     480
tttgcttatc tgaaaaatag caataacaac agcactcatt ttactagggc atgtgaataa     540
acagattttt ttcccattga gtggcaggta tttattgagt gcctactatg tgccaggcac     600
catcctactc tctggggata cagcagtgaa caaaacagac gcacacctag tgatgaggga     660
tggagtaaag cccttagccg atgccaggac agaggacatg agtcacctgt agtcgctgcc     720
actgctgcta tttcatggct acattttgac ccctgtggac ccactgaaac ctcctcactg     780
cctcacaggc agaacaagga cagggtcttg gccaccaagt ttactcactt gagctgcatt     840
tagattattc ttccagctag gccatgacag taggtagtgg cagctctctg taaagatgag     900
gggtccccag ctcggacccc tggtttcctc cacctgcctg gaccttacag tggtagccag     960
gtgtgtcctg ctgactggga agctccttac ctgggtgctt gaagtatggc tccttagcat    1020
gtgtggagag aaggctatta tgatagcaac ctgcaggggt gggatgtgta ccagaccttc    1080
accctggaac tcccgaggaa gtgcctgcag attgcctggc aggtcttatt cgggtgatgt    1140
agagcagaac gctggggcca ggttctgaag tcagacccct ggactcaact cacgcacaac    1200
tccttacctc caaactgtgt ggccttggtc aggggaactg acttctctga gcttcatttt    1260
cttcatctta aaaaaaaaag gagaatcaca ccacctaccc catggagttg ttatgaggca    1320
gagagatgtg atataaagca tgtacttggc caggcacagt ggctcacgcc tgtaatccca    1380
gcactttggg aggccgaggc agttggatca cttgaggtca gagttcgag accagcctgg    1440
ccaacatggt tgaaacccca tctctaaaac actaaaagta gctgagcatg gtggcacaca    1500
cctgtagtcc cagctacttg ggaggctgag gtgagagaat tgcttgaacc caggaggcgg    1560
aggttgagtg caccgagatt gtgccactgc actccagcct gggtgacaga gcgagaccct    1620
gtctcaaata aataaataaa taaataaata ataatgaa                             1659
```

<210> 9219
<211> 161
<212> DNA
<213> Homo sapiens

<400> 9219
```
ccgcctggtg gtcctggacc acccccacca ctgcaacgtc acctacaacg tcaataatgg      60
catccagtat gtggccagcc aggcggagca gaatgcgtcg gaagtaggct ccccacccTC     120
ctactccgag gccttgctgg accagaggtg tgtgctggat g                         161
```

<210> 9220
<211> 301
<212> DNA
<213> Homo sapiens

<400> 9220
```
cagctgtgga gctactggca gtcttgatag aacagcagtt tctaggtagt gaccagattg    60
cctggaatta gtacagtcga agcggcacgt acaggacaag aattcaagat gcttgacagt   120
ggagcacaag ggcattagct tgagggacag ccagaataaa tggaaacttc attatccatg   180
gattatgcac ttggaactta ggtcctaggc aactctgata ttagtaattt ggccagcagg   240
ctcattaagc tcttaagaaa agtgggccta gttaatgaat taacacaaga tgacatttta   300
c                                                                    301
```


<210> 9221
<211> 160
<212> DNA
<213> Homo sapiens

<400> 9221
```
ccgcctggtg gtcctgacca cccccaccac tgcaacgtca cctacaacgt caataatggc    60
atccagtatg tggccagcca ggcggagcag aatgcgtcgg aagtaggctc cccaccctcc   120
tactccgagg ccttgctgga ccagaggtgt gtgctggatg                         160
```


<210> 9222
<211> 301
<212> DNA
<213> Homo sapiens

<400> 9222
```
cagctgtgga gctactggca gtcttgatag aacagcagtt tctaggtagt gaccagattg    60
cctggaatta gtacagtcga agcggcacgt acaggacaag aattcaagat gcttgacagt   120
ggagcacaag ggcattagct tgagggacag ccagaataaa tggaaacttc attatccatg   180
gattatgcac ttggaactta ggtcctaggc aactctgata ttagtaattt ggccagcagg   240
ctcattaagc tcttaagaaa agtgggccta gttaatgaat taacacaaga tgacatttta   300
c                                                                    301
```


<210> 9223
<211> 2673
<212> DNA
<213> Homo sapiens

<400> 9223
```
gagccgctgt gaaaaaggcc tccaccagcc tctcaccaga agagattgct cattggaacg    60
caatgccacc tggtggggga cgaggacagt gcgagcaagc agatgttatt tcctactgac   120
ctaatttaga gaacattaaa cgtaagagag ggaacatttg gggttggaag cctgtgccca   180
aaaccttaaa gagtgcaggc agctggccat aaaagcagct tgagcaaacc cctcattcag   240
ccgttgaaat gtgtgtgtga cactttaaa ggtttcctct gtgcttttcc tgcgtgcatt   300
tggtcatcac agctgtgaag tggggtggga atgtttcccc tcgttttcta ggagagaaat   360
tttgggttca gtgagacgaa gtgctgcaga caggcccatg gtgatgctca ggcctctgct   420
tgaagttggt gctcacttcc tggcaccact tcctgccccc accagtgctt ctggcagagc   480
ccagggcagt ggctttatgg aactgtgtaa ggtgatagga acccacaggt ggaatggccg   540
tgtggcctct ggactgagga gggctggacc aggttgtggg cacgcctgga acacacgcca   600
catcctatcc catagcgagg cctcttcctt gtggctctcg aaggatttga ggacgcggga   660
gggtgaaatg tttccagaga aatatccagg acttttagaa ctaggctttc aaaagcattt   720
acctgtcaga taaattcaag tggcatcaat gcagatttta aatgtgtaca gatatctcca   780
ctcgcacgct gagttgtgct tcacacaagt tttgcgcacg gagtattcca ttaaatctac   840
tgaagcagtg gggcaaggag aaaggagagg tgactgctga tgttttaaa gctctgacag   900
```


6743

```
tcacatatag attgtcccag gtacccctgc tgcccccaag acactccaaa ggcaaagatg    960
gatggtgaca aagtaacctt catgcagaaa caagaacagt cacccccaac aacaagccct   1020
gctgaaggtg aagaatgcca ccaggctgcc tggcagttac tgagtgctta ttcctgctag   1080
cctattggag tcacgtcata tttgttacat ggtaacttaa ttgtgccttc cacgccttca   1140
caaaatcagt tgtacaagag aaggcaccca ccacagtcca tgtgaccttt ctcggtctga   1200
tttacatagt ggggatgatg acactcgcgt tgtagagtag ttgcacgatt aaacctggca   1260
cacagacata aagcactcaa tgtctgacac atagtggact ctcaagaagt ttgtcatgca   1320
ggggacactt gaatgcccag tatgggccag acagcatcag ctcatttcag tcccacagcc   1380
ctgtgaggga ggaactctgc cctgttttac agttagggaa attgaggcac aaaggctaag   1440
aagtcgatat ccaagggcac agaatgattg ggtgacggtg agcccaggca gtgtgacaac   1500
aaggttgctg ccccacgcca cctctgtctt tcgtgggtat gtcggtgtga ggtgtaggca   1560
gccctgcact ggcattcagc aggcgggact cccgggcagg ctcttctgcg aacactcatg   1620
ggccaccagc ccctttttgga acttgccttt tttttttttt tttacctgaa agctacgtga   1680
atcgttggta aattggtgta aaaatggaac tgagtcatct caaaagttcc tttcagttct   1740
aaaattctgt gaattgaagc ctactttttc actttaaatg atttattggg tttacagttc   1800
tttacgcttt ctgattgaac tgatttgaag ttcttatttc gtgtgttggg gaacacaccc   1860
ccaacccgtc acagcgtggc cgtgggtggg agatggacgt taggctggcc agtcactagg   1920
gggcagcatc agcacgggtc tggctgtccc tggccttagg gagcagtttc tgcccctcct   1980
gccccgtcag aaagtctcgg actcctctct gcttgcatgt gtaaagtttt cattttcagg   2040
ggccttttag tcaaaaaaaa taaagctgta tgacttagtg ctgaaggata tgaattaggc   2100
gtagctcttg ggttggcagc ataaaccaag gggcatcaac ccaccaccga caagctaaga   2160
atggtttta catctttaaa tggttgaaaa aggaaaaaga atgtttagtg acacgtgaaa   2220
aatacatgaa attcaaactt cagtgtctac aaataaagtg cattagcaca cggtcgtctt   2280
gcttctctat gtgttgtctg tgggtgcttt gtcttatccc agcaaagtgg aataactggg   2340
atggagacgc tatggccctc gaagcctaaa atatttaccg tctgtccctt acaggaaaag   2400
cttgccataa tcagcctcat ctgaagaaag atgcacttcg cattatcttg aaggtcctga   2460
ttttctggga ggagggactc gtgccctcct tttcgggctc tgctttcttg gcacagtcag   2520
tagtttctgg cgcttaagaa ggcacagacg ctaagtgggt gcagtgagcc caggcagtgc   2580
gcggcactga gcggttagga agttgctggt cttatgcac agtcattcag caaaccttgg   2640
ctgggagctc agcctagcga ggggcatcct agc                                2673


<210> 9224
<211> 2673
<212> DNA
<213> Homo sapiens

<400> 9224
gagccgctgt gaaaaaggcc tccaccagcc tctcaccaga agagattgct cattggaacg    60
caatgccacc tggtggggga cgaggacagt gcgagcaagc agatgttatt tcctactgac   120
ctaatttaga gaacattaaa cgtaagagag ggaacatttg gggttggaag cctgtgccca   180
aaaccttaaa gagtgcaggc agctggccat aaaagcagct tgagcaaacc cctcattcag   240
ccgttgaaat gtgtgtgtga cactttaaa ggtttcctct gtgcttttcc tgcgtgcatt   300
tggtcatcac agctgtgaag tggggtggga atgtttcccc tcgttttcta ggagagaaat   360
tttgggttca gtgagacgaa gtgctgcaga caggcccatg gtgatgctca ggcctctgct   420
tgaagttggt gctcacttcc tggcaccact tcctgccccc accagtgctt ctggcagagc   480
ccagggcagt ggctttatgg aactgtgtaa ggtgatagga acccacaggt ggaatggccg   540
tgtggcctct ggactgagga gggctggacc aggttgtggg cacgcctgga acacacgcca   600
catcctatcc catagcgagg cctcttcctt gtggctctcg aaggatttga ggacgcggga   660
gggtgaaatg tttccagaga aatatccagg acttttagaa ctaggctttc aaaagcattt   720
acctgtcaga taaattcaag tggcatcaat gcagatttta aatgtgtaca gatatctcca   780
ctcgcacgct gagttgtgct tcacacaagt tttgcgcacg gagtattcca ttaaatctac   840
tgaagcagtg gggcaaggag aaaggagagg tgactgctga tgtttttaaa gctctgacag   900
tcacatatag attgtcccag gtacccctgc tgcccccaag acactccaaa ggcaaagatg   960
gatggtgaca aagtaacctt catgcagaaa caagaacagt cacccccaac aacaagccct  1020
gctgaaggtg aagaatgcca ccaggctgcc tggcagttac tgagtgctta ttcctgctag  1080
cctattggag tcacgtcata tttgttacat ggtaacttaa ttgtgccttc cacgccttca  1140
caaaatcagt tgtacaagag aaggcaccca ccacagtcca tgtgaccttt ctcggtctga  1200
tttacatagt ggggatgatg acactcgcgt tgtagagtag ttgcacgatt aaacctggca  1260
cacagacata aagcactcaa tgtctgacac atagtggact ctcaagaagt ttgtcatgca  1320
ggggacactt gaatgcccag tatgggccag acagcatcag ctcatttcag tcccacagcc  1380
```

6744

```
ctgtgaggga ggaactctgc cctgtttttac agttagggaa attgaggcac aaaggctaag    1440
aagtcgatat ccaagggcac agaatgattg ggtgacggtg agcccaggca gtgtgacaac    1500
aaggttgctg ccccacgcca cctctgtctt tcgtgggtat gtcggtgtga ggtgtaggca    1560
gccctgcact ggcattcagc aggcgggact cccgggcagg ctcttctgcg aacactcatg    1620
ggccaccagc cctttctgga acttgccttt tttttttttt tttacctgaa agctacgtga    1680
atcgttggta aattggtgta aaaatggaac tgagtcatct caaaagttcc tttcagttct    1740
aaaattctgt gaattgaagc ctactttttc actttaaatg atttattggg tttacagttc    1800
tttacgcttt ctgattgaac tgatttgaag ttcttatttc gtgtgttggg gaacacaccc    1860
ccaacccgtc acagcgtggc cgtgggtggg agatggacgt taggctggcc agtcactagg    1920
gggcagcatc agcacgggtc tggctgtccc tggccttagg gagcagtttc tgcccctcct    1980
gccccgtcag aaagtctcgg actcctctct gcttgcatgt gtaaagtttt cattttcagg    2040
ggccttttag tcaaaaaaaa taaagctgta tgacttagtg ctgaaggata tgaattaggc    2100
gtagctcttg ggttggcagc ataaaccaag gggcatcaac ccaccaccga caagctaaga    2160
atggtttta catctttaaa tggttgaaaa aggaaaaaga atgtttagtg acacgtgaaa    2220
aatacatgaa attcaaactt cagtgtctac aaataaagtg cattagcaca cggtcgtctt    2280
gcttctctat gtgttgtctg tgggtgcttt gtcttatccc agcaaagtgg aataactggg    2340
atggagacgc tatggccctc gaagcctaaa atatttaccg tctgtccctt acaggaaaag    2400
cttgccataa tcagcctcat ctgaagaaag atgcacttcg cattatcttg aaggtcctga    2460
ttttctggga ggagggactc gtgccctcct tttcgggctc tgctttcttg gcacagtcag    2520
tagtttctgg cgcttaagaa ggcacagacg ctaagtgggt gcagtgagcc caggcagtgc    2580
gcggcactga gcggttagga agttgctggt tcttatgcac agtcattcag caaaccttgg    2640
ctgggagctc agcctagcga ggggcatcct agc                                 2673


<210> 9225
<211> 353
<212> DNA
<213> Homo sapiens

<400> 9225
tccagagaca ggcaggggca ggcaggggct gcaggcacct gcttcaccgc gggagggagc     60
caggagaagt gggtcccaga ggaaaatctt cctgtacacg ggctgcatta gtggtacctg    120
agggcatctg gaagaccgtg gttctccttg caacagtcac ctaatggcct tcagtgaaaa    180
gacagactcc ttgactctct ctttccccaa acacattcct acagagtgga agtttccaga    240
gaaaacagcc atcaaagaag gttgagagtg agaattaaga gacactggag aagatcaaga    300
gaatgtgccc tgaagacaac aacaaaaatc aataaaagat ttcaagaatg aaa           353


<210> 9226
<211> 353
<212> DNA
<213> Homo sapiens

<400> 9226
tccagagaca ggcaggggca ggcaggggct gcaggcacct gcttcaccgc gggagggagc     60
caggagaagt gggtcccaga ggaaaatctt cctgtacacg ggctgcatta gtggtacctg    120
agggcatctg gaagaccgtg gttctccttg caacagtcac ctaatggcct tcagtgaaaa    180
gacagactcc ttgactctct ctttccccaa acacattcct acagagtgga agtttccaga    240
gaaaacagcc atcaaagaag gttgagagtg agaattaaga gacactggag aagatcaaga    300
gaatgtgccc tgaagacaac aacaaaaatc aataaaagat ttcaagaatg aaa           353


<210> 9227
<211> 2236
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (996)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (997)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (998)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (999)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1000)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1001)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1002)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1003)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1004)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1005)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1006)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1007)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1008)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1009)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1010)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1011)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1012)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1013)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1014)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1015)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1016)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1017)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1018)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1019)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1020)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1021)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1022)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1023)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1024)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1025)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1026)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1027)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1028)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1029)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1030)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1031)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1032)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1033)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1034)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1035)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1036)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1037)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1038)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1039)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1040)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1041)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1042)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1043)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1044)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1045)
```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1046)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1047)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1048)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1049)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1050)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1051)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1052)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1053)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1054)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1055)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1056)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1057)
<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (1058)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1059)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1060)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1061)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1062)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1063)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1064)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1065)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1066)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1067)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1068)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1069)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1070)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1071)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1072)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1073)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1074)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1075)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1076)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1077)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1078)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1079)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1080)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1081)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1082)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1083)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1084)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1085)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1086)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1087)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1088)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1089)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1090)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1091)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1092)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1093)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1094)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1095)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1096)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1097)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1098)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1099)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1100)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1101)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1102)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1103)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1104)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1105)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1106)
```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1109)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1111)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1112)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1113)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1114)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1115)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1117)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1118)
<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (1119)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1120)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1121)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1122)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1123)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1124)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1125)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1126)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1127)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1128)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1129)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1130)
<223> n equals a,t,g, or c
```

6756

```
<220>
<221> SITE
<222> (1131)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1132)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1133)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1134)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1135)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1136)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1137)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1138)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1139)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1140)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1141)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1142)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1143)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1144)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1145)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1146)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1147)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1148)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1149)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1150)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1151)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1152)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1153)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1154)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1155)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1156)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1157)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1158)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1159)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1160)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1161)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1162)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1165)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1166)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1167)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1168)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1169)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1170)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1171)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1172)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1173)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1174)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1175)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1176)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1177)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1178)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1179)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1180)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1181)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1182)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1183)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1184)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1185)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1186)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1187)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1188)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1189)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1190)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1191)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1192)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1193)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1194)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1195)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1196)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1197)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1198)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1199)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1200)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1201)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1202)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1203)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1204)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1205)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1206)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1207)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1208)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1209)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1210)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1211)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1212)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1213)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1214)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1215)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1216)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1217)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1218)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1219)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1220)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1221)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1222)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1223)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1224)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1225)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1226)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1227)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1228)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1229)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1230)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1231)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1232)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1233)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1234)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1235)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1236)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1237)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1238)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1239)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1240)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1241)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1242)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1243)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1244)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1245)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1246)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1247)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1248)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1249)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1250)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1251)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1252)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1253)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1254)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1255)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1256)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1257)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1258)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1259)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1260)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1261)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1262)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1263)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1264)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1265)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1266)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1267)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1268)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1269)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1270)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1271)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1272)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1273)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1274)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1275)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1276)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1277)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1278)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1279)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1280)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1281)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1282)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1283)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1284)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1285)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1286)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1287)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1288)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1289)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1290)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1291)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1292)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1293)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1294)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1295)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1296)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1297)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1298)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1299)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1300)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1301)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1302)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1303)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1304)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1305)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1306)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1307)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1308)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1309)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1310)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1311)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1312)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1313)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1314)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1315)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1316)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1317)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1318)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1319)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1320)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1321)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1322)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1323)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1324)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1325)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1326)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1327)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1328)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1329)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1330)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1331)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1332)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1333)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1334)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1335)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1336)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1337)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

6773

```
<222> (1338)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1339)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1340)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1341)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1342)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1343)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1344)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1345)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1346)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1347)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1348)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1349)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1350)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1351)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1352)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1353)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1354)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1355)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1356)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1357)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1358)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1359)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1360)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1361)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1362)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1363)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1364)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1365)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1366)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1367)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1368)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1369)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1370)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1371)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1372)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1373)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1374)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1375)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1376)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1377)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1378)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1379)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1380)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1381)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1382)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1383)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1384)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1385)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1386)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1387)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1388)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1389)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1390)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1391)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1392)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1393)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1394)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1395)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1396)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1398)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1399)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1400)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1401)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1402)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1403)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1404)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1405)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1406)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1407)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1408)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1409)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1410)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1411)
```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1412)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1413)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1414)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1415)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1416)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1417)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1418)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1419)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1420)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1421)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1422)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1423)
<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (1424)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1425)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1426)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1427)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1428)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1429)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1430)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1431)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1432)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1433)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1434)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1435)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1436)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1437)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1438)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1439)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1440)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1441)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1442)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1443)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1444)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1445)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1446)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1447)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1448)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1449)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1450)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1451)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1452)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1453)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1454)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1455)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1456)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1457)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1458)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1459)
<223> n equals a,t,g, or c


<220>
<221> SITE
```

```
<222> (1460)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1461)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1462)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1463)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1464)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1465)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1466)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1467)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1468)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1469)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1470)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1471)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1472)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1473)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1474)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1475)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1476)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1477)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1478)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1479)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1480)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1481)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1482)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1483)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1484)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1485)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1486)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1487)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1488)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1489)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1490)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1491)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1492)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1493)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1494)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1495)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1496)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1497)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1498)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1499)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1500)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1501)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1502)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1503)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1504)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1505)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1506)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1507)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1508)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1509)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1510)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1511)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1512)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1513)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1514)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1515)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1516)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1517)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1518)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1519)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1520)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1521)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1522)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1523)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1524)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1525)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1526)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1527)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1528)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1529)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1530)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1531)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1532)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1533)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1534)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1535)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1536)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1537)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1538)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1539)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1540)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1541)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1542)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1543)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1544)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1545)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1546)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1547)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1548)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1549)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1550)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1551)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1552)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1553)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1554)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1555)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1556)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1557)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1558)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1559)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1560)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1561)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1562)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1563)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1564)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1565)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1566)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1567)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1568)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1569)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1570)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1571)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1572)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1573)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1574)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1575)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1576)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1577)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1578)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1579)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1580)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1581)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

6793

```
<222> (1582)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1583)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1584)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1585)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1586)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1587)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1588)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1589)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1590)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1591)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1592)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1593)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1594)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1595)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1596)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1597)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1598)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1599)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1600)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1601)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1602)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1603)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1604)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1605)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1606)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1607)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1608)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1609)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1610)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1611)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1612)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1613)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1614)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1615)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1616)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1617)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1618)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1619)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1620)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1621)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1622)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1623)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1624)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1625)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1626)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1627)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1628)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1629)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1630)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1631)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1632)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1633)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1634)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1635)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1636)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1637)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1638)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1639)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1640)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1641)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1642)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1643)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1644)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1645)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1646)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1647)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1648)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1649)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1650)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1651)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1652)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1653)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1654)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1655)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1656)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1657)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1658)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1659)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1660)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1661)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1662)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1663)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1664)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1665)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1666)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1667)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1668)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1669)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1670)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1671)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1672)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1673)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1674)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1675)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1676)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1677)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1678)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1679)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1680)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1681)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1682)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1683)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1684)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1685)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1686)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1687)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1688)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1689)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1690)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1691)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1692)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1693)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1694)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1695)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1696)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1697)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1698)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1699)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1700)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1702)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1703)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1704)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1705)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1706)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1707)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1708)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1709)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1710)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1711)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1712)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1713)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1714)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1715)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1716)
```

6804

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1717)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1718)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1719)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1720)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1721)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1722)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1723)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1724)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1725)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1726)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1727)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1728)
<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (1729)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1730)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1731)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1732)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1733)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1734)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1735)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1736)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1737)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1738)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1739)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1740)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1741)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1742)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1743)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1744)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1745)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1746)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1747)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1748)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1749)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1750)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1751)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1752)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1753)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1754)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1755)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1756)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1757)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1758)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1759)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1760)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1761)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1762)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1763)
<223> n equals a,t,g, or c


<220>
<221> SITE
<222> (1764)
<223> n equals a,t,g, or c


<220>
<221> SITE
```

<220>
<221> SITE
<222> (1765)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1766)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1767)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1768)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1769)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1770)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1771)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1772)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1773)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1774)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1775)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1776)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1777)

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1778)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1779)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1780)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1781)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1782)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1783)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1784)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1785)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1786)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1787)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1788)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1789)
<223> n equals a,t,g, or c
```

6810

```
<220>
<221> SITE
<222> (1790)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1791)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1792)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1793)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1794)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1795)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1796)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1797)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1798)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1799)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1800)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1801)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1802)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1803)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1804)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1805)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1806)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1807)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1808)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1809)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1810)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1811)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1812)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1813)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1814)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1815)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1816)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1817)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1818)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1819)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1820)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1821)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1822)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1823)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1824)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1825)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

6813

```
<222> (1826)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1827)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1828)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1829)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1830)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1831)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1832)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1833)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1834)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1835)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1836)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1837)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1838)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1839)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1840)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1841)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1842)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1843)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1844)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1845)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1846)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1847)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1848)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1849)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1850)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1851)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1852)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1853)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1854)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1855)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1856)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1857)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1858)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1859)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1860)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1861)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1862)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1863)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1864)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1865)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1866)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1867)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1868)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1869)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1870)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1871)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1872)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1873)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1874)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1875)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1876)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1877)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1878)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1879)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1880)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1881)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1882)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1883)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1884)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1885)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1886)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

```
<222> (1887)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1888)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1889)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1890)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1891)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1892)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1893)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1894)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1895)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1896)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1897)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1898)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1899)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1900)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1901)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1902)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1903)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1904)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1905)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1906)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1907)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1908)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1909)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1910)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1911)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1912)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1913)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1914)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1915)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1916)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1917)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1918)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1919)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1920)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1921)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1922)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1923)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1924)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1925)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1926)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1927)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1928)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1929)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1930)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1931)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1932)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1933)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1934)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1935)
<223> n equals a,t,g, or c

<220>
```

```
<221> SITE
<222> (1936)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1937)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1938)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1939)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1940)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1941)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1942)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1943)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1944)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1945)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1946)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1947)
<223> n equals a,t,g, or c

<220>
<221> SITE
```

6823

```
<222> (1948)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1949)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1950)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1951)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1952)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1953)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1954)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1955)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1956)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1957)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1958)
<223> n equals a,t,g, or c

<220>            .
<221> SITE
<222> (1959)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1960)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1961)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1962)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1963)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1964)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1965)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1966)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1967)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1968)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1969)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1970)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1971)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1972)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1973)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1974)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1975)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1976)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1977)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1978)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1979)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1980)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1981)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1982)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1983)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1984)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (1985)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1986)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1987)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1988)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1989)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1990)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1991)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1992)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1993)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1994)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1995)
<223> n equals a,t,g, or c

<400> 9227
tgcagggagc tgagatcgcg ccactgcatt ccagcctggg tgacagagtg agactccatc     60
tcgaaaaaaa aaaaaaaaag aatctgaggt ttaattcaag gagcagtgga agccattcat    120
tccaaattgt caggatctat gcaggtatgc ccctccctgt cctctctgag cttagggtca    180
atgcctagaa atgtatgtga ttgctaatag atttgctaca tgccaggcac tactctgagc    240
actttattcc ttcctttcta atttgtgtgc cttttatttc ttttccgtgc tttattgcat    300
```

6827

```
tggctagggc ctccagtaca gcactgaata ggcatggtga cagcacgcag acatcccttc    360
cttgttcctg atcttaggag aaaaacattc cacttcccac tcccaccagg aaggataaga    420
ttcgctgtag ttttgggtgt tattattatt atttttttgg tttgcttgag acagagtctt    480
gctctgttac ccaggctgga gtgcagtggc acaattttga ctgactacaa cctccacttc    540
tcaggttcaa gcaatcctcc tgcctcagcc tcccgagtat ctgggactac agtgtacacc    600
accacaccca gctaatttttt gtattttttag tagagacagg gtttcaccat gtttgccagt    660
ctggtcttga actcctgacc tcaagtgatc tgcccgcctc ggcctcccaa agtgctggaa    720
ttacaggtgt gagccactgt gcctggccta gttttgggtg gtttttttgta gatgtctttt    780
atcaagttaa gaaagtttcc ttctagttct agtttgccga gagtttttctt ttttaaaatc    840
atgaatggat gttgaatttt atcaaatgct tctacatttta ttgatatgat aatatcattt    900
ttctctaata actatacatt tatttaagcc tcccaacagt cttatgaggt agatactggg    960
ttcacaccaa tttaaaaaaa aaaaaaaaaa aggggnnnnn nnnnnnnnnn nnnnnnnnnn   1020
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1080
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1140
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1200
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1260
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1320
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1380
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1440
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1500
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1560
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1620
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1680
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1740
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1800
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1920
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   1980
nnnnnnnnnn nnnnnacctg agtacagaag ttcaacacca tcctggccaa catggtgaaa   2040
cctgtctcta ctaaaaatac aaaaattagt tgggcatggt ggcatgtgcc tgtaattcca   2100
gctactgggg aagaggcagg agaattgctt gaatccagga cacggaaatt gcagtgagcc   2160
cgagatcatg ccactagcac tccagcctgg gtgacagagc gagactctat ctcaaaaaaa   2220
aaaaaaaaaa acaagg                                                   2236


<210> 9228
<211> 957
<212> DNA
<213> Homo sapiens

<400> 9228
tttatttctg ttgttgttct acttctggga gacttcttca actttgtatt ctaatatttc     60
tctgaatgga aaacaacttc atatattatt cacacaccac ataattcacc tatttaaagt    120
tcaatggttt ttggtatatt acattattag ttttttaata attgtagtaa aacatataat    180
acaaaacagt tatcattctg accactttta agtgtaccat tcagtggcaa taacttagtg    240
ttgtgcaacc ataaccacaa actatttcca aaactttttc attatcccaa acagaaactt    300
taatcattaa acaataatta tccatttctc cactctgcaa cctggcccct agcaacctct    360
attccacttt ctgtccctat gaatttgcca attctatata cttcaaaaaa gtataatcat    420
acaatatctg tcctttttcag tttggcttac ttcacttatc ataaggtttt caatgttcat    480
ttacatagca tgaataagga tgtcattcct ttttatggtg gaataatatc ccattggatg    540
aatataccac tttttgggct tttgttattt ttcattgaca tatgataatc atgtggctgg    600
tgtctgcaat cccagcactt tgggaatctc aggagggggg atcccttgag cccaggagtt    660
tgaaaccagc ctgggcaaca cagcaagatc tcatctctac aagtaattta aaaaattagg    720
ccaggtgcag tggctcacgc ctgtaatcct agcactttgg gaggcggaag caggcagatg    780
acctgatgtc aggagttaag agaccagcct ggccaacatg gtgaagcccc gtctctacta    840
aaaatacaaa aatcagctgg gtgtggtggc gcacgcctgt aatcccagct actcaggagg    900
ctgaggcagg agaatcgctg gaacctggga ggcagaggct gcagtgagct gagatca       957


<210> 9229
<211> 115
```

<212> DNA
<213> Homo sapiens

<400> 9229
gggcgcagtg gctcacgcct gtaatcccag cactttagga ggccaaggtg ggtggatcac   60
gaggtcagga gatcgagacc atcctggcca acatggtgaa accccatctc tacta   115

<210> 9230
<211> 89
<212> DNA
<213> Homo sapiens

<400> 9230
tgagacagag tctcgctctt tcgcccaggc tggagtgcag tggcgcaatc tcggctcact   60
gcaagctccg cctcctgggt tcaggccat   89

<210> 9231
<211> 2907
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (27)
<223> n equals a,t,g, or c

<400> 9231
gatccagcgc actgggccct gaccctngga cctggtcatc tttgcgtgtg gaaaagatgg   60
catttccagt tattgacagg tggatgctgg cctttaggga aaaaaaaata ttagaattcc   120
ctacagaata aaggatgaag atgagaggtt aaggtttttc taaggcatga agagctgtgg   180
gggcagctgc ccttgttctt tttgtcgtgt gtccttcaca tgcagtaact ctgttcacgc   240
ctcacaaaaa ccctatgagg tggagacctg ccatcaaccc ttcctgcccg ggtgccactg   300
aggccccaag gttaaatcat ttcccagagt gtatcagcag aggcacagcc acagagacac   360
gtccgcacag agagctttcc agatcaccag taacagcgtg agatcatggt gcagaaggtc   420
atgaggagga tggcaacgag cgagacacag ccggttggtg ctcacaagga cattggtaga   480
tctgactgag ggccaggtcg gctaggcctt cccaggtgac aggagcccag tgccggcctt   540
ggtgcacaca gcgcgtcctt gtgctttctc aggagagctt cactggggac actctgtgat   600
gtttttggag ggtcatttgg taatgtgttc aggagccaaa aaatatgcat aatattcagt   660
cttacaatta catttttga atttatctca aggaaatccc agggatctgt gtgaagctgc   720
acatgctgct gctgctcagt gcgggactgt ttataatatt tgtaactcaa atgtccagaa   780
gaactgtaca ctctgtgcat gttttcagta agttcatatt tgtaagaaaa agtgggtgtg   840
ttgagagaca aattttgtg tacatttacc tggaaacaag cagtagtaca catatgcatg   900
catgaagtgg tgtttttcctg agtgttaaga ttgtgaatgt tttattatga tcatttctac   960
tttttctatt ggaaaatact ttgtgtaatt aaaacatgaa gatggagcta ccatcaaaat   1020
ggtgagcaat agagcactgt tcctcctggg gtggcctggt gggcctgagg gactcaggtg   1080
gtgatgagga gtggccttga gtccctttcc tttccatggg acagtgggga cgagagctag   1140
agtgatgagg caggttaagt gtgtgcctac ctccctgtgg ctggagcact gttgtggcca   1200
ccccgggacc ccctgagcct ggtgtcgccc tggcttgctg gtcccagcct agggagtggg   1260
cccctatggg cagagggtga ggtggctgtg ctggcactgc agctcaggca cacacacact   1320
ggagtgttcc aatgggtgat caggttggat ggagccttga aattaagtca gtgatgtaat   1380
ttttataatc tgtttcactt taaaacaaaa atctttgcac acctggtcca agttttctcc   1440
cctttcttcc tgttgctgcc atgatgaaag cagaagggac caccctccag ggagagcagc   1500
aggaagggag gtgcgggtag gggccctggg tcagcagggg cggtcagtcc ggaggtgcac   1560
ccccatttat tcctcgttct ggaagagatt tctagtcaca tgcatgtggc tcctgtgcca   1620
catgtgtcat gaggtgccca ggtgggtttg gatttggatg agggcatctt tgaggatgca   1680
ggggctttgt catacccctgt gggccccgtg tacacccctg gggcagatgt ggcctctaac   1740
aggggagggt gcatggatct ctaagccggg gaggaaagca gattgcagac ttgccgaagt   1800
gggagctgtc tgctcttgtg tttttctttag gggcaggaga attttgccca gcagtccctc   1860
gtggctccct ccacaccact gacccttacg cgtccaaggt tggagccctg gcaggtaaag   1920

```
ggtgagcaag gtgcagttgc ctgtgagcag ctgtggaggg gcctttcctg ttgtacactt   1980
cctgtgaggg tctcagaccc cttgcagact ctggacatca cttcctagag gggcctgggc   2040
tcctttagtc ctgtgagtaa agctttggtt ttgatgactg tctcagggaa aggtagaaag   2100
gtgcttggtg gcagtgaact tcctgctgca gaagtgggtg tgaccccagt gctggagaat   2160
gggctgtgag ccgagtttcc cgcacctgca tgagtgagcg ccatggtcct tctccacaga   2220
gcgtcctgct gtcactttgg tttgtgttaa ctttgacgcc tttcttgttt cttactctgc   2280
tttcctgcat ggagcacaca gccccggctc cctttcagtc tgcatggcag acacctggcc   2340
tctgcaggtc cagttcattc tgtgtcccct ttcggtcgtc cctatgttgc cgtcaggtga   2400
ttgagggtga aggtcggcct tggcagccca gtggaaagtc ccttgactcc tggccgtcag   2460
tggcaggtct ccagcctttg ggaggaggaa acttctattt aacaaagaaa tggaattgac   2520
tttgccacac acagccagag cgatgatttg tagagccaac ctgctgagac attcaaagca   2580
tcagtcgtag ggtcaggacc gccaggtgag gtgtggctcc acctgcagca gcctggggca   2640
ggttgcctag cctctggctt tagcatcccc ttctgtgaaa tggggaaagt gatgggacct   2700
ggctttgtag ggtggttgtg aggacctaca ggggtttttg caaaatactt agcccagggc   2760
tgactaaaag attcagagac gctgggcatg gtggcacaca cctgtagttc caggtactcg   2820
agaggccgag gcgggaggat cacttgagcc caggaattaa agtccagcct gggcaacata   2880
gtgagacctt atttcttaat aaaaaaa                                       2907


<210> 9232
<211> 4602
<212> DNA
<213> Homo sapiens

<400> 9232
cccagctcag ctactcagga ggctgaggca ggagaatcgc ttgaacccgg gaggcagagg   60
ttgcagtgag ccaagatcgc accattgcac tgcagcctgg gcaacaagag cgaaactcct   120
tcgccaaaaa aaaagaaaaa aaataaaagc taattacaaa tacaggaaaa tggataggcc   180
atgtgtttat aagtttgagc tcttgagcca gtgacttccc tgcacgttca gctttctcct   240
ttgtgaaatg gtaatagaag cacgctgcac aaaaaattct tgtggattac atgtgagggt   300
cttagaaaca cttgatgtgt aagccaacta ttatgtatta ctgtatatgg aacacaaggg   360
atgtagccaa aactaaatgc aagtttgtgc ctcagatgtc ttcctatcag aacagagtca   420
aatccagatt ttgatgctta aatgtgacag cttattcaga tttagaaaaa cttttggtat   480
gggccaaaga aaacatatcc ttaaggggat atggccccta ggccctcatt ttccttttct   540
gtctgagcaa ttaaaaaaag cattaagtaa attccacaaa ttctttggaa tacctagaga   600
taaacagata tcatgttaac tgtatgataa taagttagaa tacttgcaac aaaatgcaga   660
gttttctagg aaaacaagta atcattcaga aataagaata tgaatagttc ctcagttctc   720
cccctttgtg gaatttgtgc agtaaatgct gctccaaagc tctgtggaaa acagaagctt   780
cccatgaaaa atctgacaag ggtatctctc agaaagagag ctgtaatccc agcactgtgg   840
gaggctgagg tgggagtatt gcttgaggcc aggagttcaa gaccagcctg ggcaacgtgg   900
taagaccccc atctgtaaaa aaataataa ttagccacgc gtggtggtgc acacctgtgg   960
tcccaattac tggggagact gaggcggaag aatcgcttga gcccaggaga tggaggttgt   1020
cgtgagctag gatctgccac tgcactctag cctgggtgac agtaagaccc ttgtctcaaa   1080
aaaaaaaaaa agaaaaactg cagattggtg actcttacga agatagatgg aaatgttcta   1140
aataaaacac acttaggatc tggcaatata tatatttaat gtactattct gaccaaatgg   1200
agcttaatca gatagcttga gaatgattta atgttacgaa atctgttaat tgcattatct   1260
caataataga tcggtgaata actttattat tctctcaaca aatcctgtat ttgatttaca   1320
aaatggatgg gaggtttcag ggagagcagt tggaagcctg tgtgctcacc tgttaggaac   1380
gagagtggca acagcagtgg ggaggagtgc tcggctcctg cacctgtctc gatggcagag   1440
cccacaggct tggctgacag acgtgggatg aaggaaagag aagcctctca ctcttcccac   1500
agcattgtag tgcgatttca tgcagaagtc caagcaggtt ccaggacaat tgtgtaagaa   1560
gctatggaca agaacgtcta agaaacggaa atgacataga ggatttgcac tgtagctaag   1620
acttcacgca aggctgtggc cagctgaaag catgttctgg tgctggggct cgtggcaga   1680
gccaggagcc caggatccag cgcactgggc accgacctgg gacctggtca tctttgcgtg   1740
tggaaaagat ggcatttcca gttattgaca ggtgaatgct ggcctttttag ggaaaaaaaa   1800
atattagaat tccatacaga ataaagaatg aagatgagag gttaaaggtt tttctaaggc   1860
atgaagagct gtgggggcag cctgcccttg ttcttttttgt cgtgtgtcct tcacatgcag   1920
taactctgtt cacgcctcac aaaaacccta tgaggtggag acctgccatc aacccttcct   1980
gcacgggtgc cactgaggcc ccaaggttaa atcatttccc agagtgtatc agcagaggca   2040
cagccacaga gacacgtccg cacagagagc tttccagatc accagtaaca gcgtgagatc   2100
atggtgcaga aggtcatgag gaggatggca acgagcgaga cacagccggt tggtgctcac   2160
```

6830

```
aaggacattg gtagatctga ctgagggcca ggtcggctag gccttcccag gtgacaggag    2220
cccagtgccg gccttggtgc acacagcgcg tccttgtgct ttctcaggag agcttcactg    2280
gggacactct gtgatgtttt tggagggtca tttggtaatg tgttcaggag ccaaaaaata    2340
tgcataatat tcagtcttac aattacattt tttgaattta tctcaaggaa atcccaggga    2400
tctgtgtgaa gctgcacatg ctgctgctgc tcagtgcggg actgtttata atatttgtaa    2460
ctcaaatgtc cagaagaact gtacactctg tgcatgtttt cagtaagttc atatttgtaa    2520
gaaaaagtgg gtgtgttgag agacaaattt ttgtgtacat ttacctggaa acaagcagta    2580
gtacacatat gcatgcatga agtggtgttt tcctgagtgt taagattgtg aatgtttat    2640
tatgatcatt tctacttttt ctattggaaa atactttgtg taattaaaac atgaagatgg    2700
agctaccatc aaaatggtga gcaatagagc actgttcctc ctggggtggc ctggtgggcc    2760
tgagggactc aggtggtgat gaggagtggc cttgagtccc tttcctttcc atgggacagt    2820
ggggacgaga gctagagtga tgaggcaggt taagtgtgtg cctacctccc tgtggctgga    2880
gcactgttgt ggccaccccg ggacccccctg agcctggtgt cgccctggct tgctggtccc    2940
agcctaggga gtgggcccct atgggcagag ggtgaggtgg ctgtgctggc actgcagctc    3000
aggcacacac acactggagt gttccaatgg gtgatcaggt tggatggagc cttgaaatta    3060
agtcagtgat gtaatttta taatctgttt cactttaaaa caaaaatctt tgcacacctg    3120
gtccaagttt tctccccttt cttcctgttg ctgccatgat gaaagcagaa gggaccaccc    3180
tccagggaga gcagcaggaa gggagatgcg ggtaggggcc ctgggtcagc aggggcggtc    3240
agtccggagg tgcacccca tttattcctc gttctggaag agatttctag tcacatgcat    3300
gtggctcctg tgccacatgt gtcatgaggt gcccaggtgg gtttggattt ggatgagggc    3360
atctttgagg atgcaggggc tttgtcatac cctgtgggcc ccgtgtacac ccctggggca    3420
gatgtggcct ctaacagggg agggtgcgtg gatctctaag ccggggagga aagcagattg    3480
cagacttgcc gaagtgggag ctgtctgctc ttgtgttttc tttaggggca ggagaatttt    3540
gcccagcagt ccctcgtggc tccctccaca ccactgaccc ttacgcatcc aaggttggag    3600
ccctggcagg taaagggtga gcaaggtgca gttgcctgtg agcagctgtg gaggggcctt    3660
tcctgttgta cacttcctgt gagggtctca gaccccttgc agactctgga catcacttcc    3720
tagaggggcc tgggctcctt tagtcctgtg agtaaagctt tggttttgat gactgtctca    3780
gggaaaggta gaaaggtgct tggtggcagt gaacttcctg ctgcagaagt gggtgtgacc    3840
ccagtgctgg agaatgggct gtgagccgag tttcccgcac ctgcatgagt gagcgccatg    3900
gtccttctcc acagagcgtc ctgctgtcac tttggtttgt gttaactttg acgcctttct    3960
tgtttcttac tctgctttcc tgcatggagc acacagcccc ggctcccttt cagtctgcat    4020
ggcagacacc tggcctctgc aggtccagtt cattctgtgt cccctttcgg tcgtccctat    4080
gttgccgtca ggtgattgag ggtgaaggtc ggccttggca gcccagtgga aagtcccttg    4140
actcctggcc gtcagtggca ggtctccagc ctttgggagg aggaaacttc tatttaacaa    4200
agaaatggaa ttgactttgc cacacacagc cagagcgatg atttgtagag ccaacctgct    4260
gagacattca aagcatcagt cgtagggtca ggaccgccag gtgaggtgtg gctccacctg    4320
cagcagcctg gggcaggttg cctagcctct ggctttagca tccccttctg tgaaatgggg    4380
aaagtgatgg gacctggctt tgtagggtgg ttgtgaggac ctacaggggt ttttgcaaaa    4440
tacttagccc agggctgact aaaagattca gagacgctgg gcatggtggc acacacctgt    4500
agttccaggt actcgagagg ccgaggcggg aggatcactt gagcccagga attaaagtcc    4560
agcctgggca acatagtgag accttatttc ttaataaaaa aa                       4602
```

```
<400> 9233
gggagtttca tggcgatggc cgtctaccct catggctgtg ccccagttc ttcctgggtg      60
ggccctgctg tagttctgct atacgctgtc cctgttctgg actctggtga cgccacacct     120
tccctagtcc ctccagccct aggggtggca gccccacgac gtgctggtct ctggtgcttg     180
cttcttagtg catggccgtg ccatgccctg gtgcctgccc gggatgcctg tgtggaatgc     240
ccagagtgtt ctaggcaggg tcccctctgt gattagctcc tcaagggtgg tgtctgtgtc     300
acagacactt tggggtcctg tcagtggcct ctcgaggctc ccagggtacc ctgtactttc     360
tcaccccttg ttgctcatct attgtgggtt tgtctgtgtg ctgcaaaatg cacggctgta     420
ctgagcgcac cagccagcag ctg                                             443
```

```
```

<212> DNA
<213> Homo sapiens

<400> 9234
gggagtttca tggcgatggc cgtctaccct catggctgtg gccccagttc ttcctgggtg   60
gccctgctg tagttctgct atacgctgtc cctgttctgg actctggtga cgccacacct   120
tccctagtcc ctccagccct aggggtggca gccccacgac gtgctggtct ctggtgcttg   180
cttcttagtg catggccgtg ccatgccctg gtgcctgccc gggatgcctg tgtggaatgc   240
ccagagtgtt ctaggcaggg tcccctctgt gattagctcc tcaagggtgg tgtctgtgtc   300
acagacactt tggggtcctg tcagtggcct ctcgaggctc ccagggtacc ctgtactttc   360
tcaccccttg ttgctcatct attgtgggtt tgtctgtgtg ctgcaaaatg cacggctgta   420
ctgagcgcac cagccagcag ctg   443

<210> 9235
<211> 1936
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1768)
<223> n equals a,t,g, or c

<400> 9235
tttttttttt ttgtattttt agtagagacg ggggtttcac cgtattagcc aggatggtct   60
ccatctcctg accttgtgat ccgcccgcct cggcctccca aagtgctggg attacaggcg   120
tgagccacca tgcccggcct caacgatatt gattctttgg gctgtagtca gtattggatt   180
atgatcaata ttatcaccat ttatttgtt gctacagttc ttccagctgt ggccaatcct   240
tcagttggat tcttgttttc catcaacatt ctccatcctg gctttttgtt ttgagcactt   300
ccttccttcc tagcaccacc aggctcttgt attatccctg tccctgccct ggaatcgact   360
cctcctccag agagccctgg tttcttttgt tagaggatgg tatatagaat ccaacatgca   420
gacactcggt ggacttattg ttactggggt tttgttatac tagggtttca gtggtcagtg   480
ctagtatttta tgtatgttaa cccacgctgt gctttggatt caggctattt caaatttag   540
ataaatatggt acatatatta ttaataccac tagttactac attggtactt ttcagcaaaa   600
tatatctaag tgggatcaaa tgagactgta aatagcttta catcagttca ggtcagttat   660
gttgctaaat tactttggc attaagttta gggaaaaaaa attgggtttg ggatttttg   720
gtttcaacat ttgtgattga gagactatgg acctgtaata agtccaagaa cagcagttgc   780
agtgtaacag gactgttaat ggaatcgggt catttagaaa cagtcaagac ttcgctgttg   840
tgcatgtggt taggagccag tgcacacgtc agttcttagg aaatgtacag tctgagcaat   900
agcatttgaa atccaagact cttcccattg tgttgctgtt gagtgtagaa aataaaatgt   960
gtgaatttct ttatcttgag tattgagatt ctcccttag aataaaacaa gaattttct   1020
ctcagtgtaa aaatgtcaag ttttattctt gaaatgaata gcaaagttaa gcttaaaaac   1080
gtgaacagct tcagaactat aaatgggtat gtataccttt ctgctgtcta agggcagaga   1140
agggaaagaa agtgtggtgc ttatcagagg agacagcagc aagacacatt gtgacagaaa   1200
accaagggta tcctgtgtca cagtgaagtg taatgagggc acctctcctt tcaagagacg   1260
aagattgaat acatgggaag cacactctcc gctgtgtgtt gtctaggaga ggtgcaccct   1320
gtatggaaat atttgggaag gttaagatta agacaggta aaataaagca aaggcaaatc   1380
acaaagcaag ggctaatgtt aatatgaaaa gtgcagaatt caaggaaaaa gcatgggac   1440
aaagaagatt tttcctcttt ttggttgctg ttcatgtgta gcctacaaca gaactataag   1500
acctatagac atttatatga atatttattt gaaacgtat aatatcaaac aatgtaaaag   1560
ccaatagaaa tctcagataa ttgaatgtat agaaactagc agtttgaaag tgattagttc   1620
attatttgct gatcaagcag aaaaataagc atatgaaga tatttaaaat gggattaata   1680
aagttgattt aacagatcct attccatgtc ctttgaatat ttatagaaat taaatggaac   1740
aaattagggc atcaggaaaa ctatacanaa gtctttacca aaaaaaaaaa tatatatata   1800
tatgtgtagt actacctata tatatacata atatatagta ctgcttatat atatatatgc   1860
ctatatgtac acatatatat atacatgtat aggcagtact atgttttctg atcataatat   1920
gttaaattag taaaaa   1936

<210> 9236

<400> 9236

```
agagaaagga aaaaattctt agcacagtac ttattacaat ctgatttctt ttctttgttt      60
ttctgtcacc ttttactagg atgtatgctc catgagagca gagcttcatg gtcttgtttg     120
cctctctgct gtctccacaa tgactgcagc agtgtctggc acagagatgc caaacatttg     180
ctaaaggaat gagtagggaa tcaggttctg tttttgtctta cacccccccag tgcctaccac     240
tgtgcttggc ccataacaag tgcccagaaa ctggtgggta ctctgaggcc actctgaata     300
taattgctat tggtagatct gtgttctcat cctagaattt agaatgggaa agcggtttag     360
aactaagagt ctttcaagtg tttcgagcca aactgcaaag cttttagaat attgtctctg     420
cagcctgaaa ctgactatta cacaggttcc cccagttccc attcaagagc gaagtctaga     480
tgtttagaat tctatgccta aatagcagaa cggaagcctc attttatttt gattaaattc     540
ctattttaat acatacattg catcagtcag tgagtcagtg agtatttatt gagccccttc     600
aggatacaaa gtagtgctct ggtagagcta ttgagtttga aatatattagtc acatttttaa     660
accaaaacca aatccccaag tagttgaaag tgctgttcaa attgtcagag tgcagttcct     720
gtagactgta ttttgtgaga tgggctttta ctttatatgt tcccacttgg gcaggaacaa     780
aagtttggta aattactgag gtattacatt ttaccaaaat gaaattttga agtgatcctt     840
catcattagc tttcttcctg tccaattgtt gagggagtgt gtgataatta cagcatcttt     900
tgagtaattt aagatttttgg gatcttgtgc tgccaggaca gggtaaagaa taacacttgc     960
cttcactctt tgacactagt gttcaaattg ggcagggaaa gaagggggtat tattgttgcc    1020
tcccagatcc caactctatc caaagtactg tctcctttac ttctgtgagc tgacagggtt    1080
gcagaaacac ataaaatcct agactatctt gacatcacca accgtagagt ttgtgaaggt    1140
aacgtgtcct ctacaaattc tcatttgttt tcattgtttg ttactctttt ttgttcagat    1200
ttctctgttg acttctgcag tgaaccacct caaagccaat gttaagtcag ctgcagactt    1260
gattagcctg cctaccactg tagagggact tcagaaggta ggtgccatgt gtgggtacag    1320
agacttcaga aggtaggtgc catgtgtggg tactatttgc cataattcta gcttcttata    1380
agttttcatt gaaagcctag catttgaaat cagctgctcc aagagggcag taatggagtg    1440
tatcactgtg tcctaaagaa ttcagaacaa ttttgttttg gtctggttag ttaggccttt    1500
aatttgcaac aggttacctc agctgtgatt tatatgggtt catacctttt tatttggctc    1560
tctgagtccc agaattgctc tgctggcact cttgtgttag catatatggg ttcgcttttc    1620
agcttgcttt ttcagttcac cactcacaat atcttcatca aagcagacca attgtacatg    1680
atagttaccc taaatctctg ttactttcca taattaagaa agttaaaaaa aaaaaaaaa    1740
gatgacctgg ggaaatgcaa aaattaaaaa ttcaggaaac aagtgttggc aaggatatgt    1800
ggaacgaagg aaattttcaa acactcctgc tcctgctagg agtattaatt ggtaaaaatc    1860
actttggagg ctgggcatgg tagctcatga ctgtaatccc aacgttttgg gaggctgagc    1920
caggaggatc acttgaaccc aggaattaca gaccagcctg ggcaacatag ggagacctcg    1980
tctttacaaa aaattttaaa gttagctggg catggtggca cacaactgta gtcccagcta    2040
catgggaggc tgaagtagga agatcacttg agcctgggag gttgaggcta cagtgagctg    2100
tgaccaacca gatgaatagt actcagggat ccttagagat ggacgggaag agtggatagg    2160
ggtaggaagg cagaagaggt gcctaattcg aacataaaga acatcatccc ctgacacagg    2220
aaatgaaga agggattccc caaacggtgg atatcaaatc taggatcttt gaattataaa    2280
aatatgtgct aagtttggtc agattatgtg ccagggtcta tgagcatatg aattctttcc    2340
acaaggagc aagaaatttc taagccataa gcgaagacaa aatttgctat tttatagcca    2400
caccatctgt gtgtgctcag tctccataat ttgctacttg tccaatgtgg ccatctactt    2460
acaaattcgg ggggaaaaaa aaggggtagg gacaactctg atgaggccag attcttgccg    2520
ttgttcctag ggccaattca ggaaatgata ggcttctgta gccattagta cagaagcagc    2580
tctcacagtc ttgcattaga aaaggaaact ggtttattct ttttttttatt acactttaag    2640
ttctagggta catgtgcaca acgtgcaggt ttgttacgta tgtatatatg tgccatgttg    2700
gtgtgctgca cccattaact catcatttac attaggtata tctcctaatg ctatccctcc    2760
ccccacccca aaacaggccc cggtgtgtga tgttcccctt cctgtgtcca agtgttctca    2820
ttgttcaatt cccacctatg agtgagaaca tgcagtgttt ggttttttgt ccttgcaata    2880
gtttgctgag aatgatggtt ccagcttca tccatgtccc tacaaagaac atgaactcat    2940
cattttttat ggctgcatag tattccatgg tgtatatctg ccatgttttc ttaatctagt    3000
ctatcactga tggacatttg ggttggttcc aagtctttgc tattgtgaat agtgccgcaa    3060
taaacataag tgtgcgtgtg tctttatagc aacatgattt ataatccttt gggtatatac    3120
ccagtaacgg gatggctggg tcaaatggta tttctagttc tagatccttg aggaatctcc    3180
acactgtctt ccacaatggt tgaactagtt tacagtccca ccaacagtgt aaaagtgttc    3240
ctatttctcc acatcctctc cagcacctgt tgtttcctga tttttaatga tcaccattct    3300
aactggtgtg agatggtatc tcattgtggt tttgatttgc atttctgtga tggccagtga    3360
```

6833

```
tgatgagcat  tttttcatgt  gtctgttggc  tgcataaatg  tcttcttttg  agaagtgtct  3420
gttcgtatcc  ttcacccact  ttttgatggg  gttgtttgat  ttttcttgt   aaatttgttt  3480
aagttctttg  tagattctgg  atattagccg  tttgtcagat  gaggagattg  caaaaatttt  3540
cttccattct  gtaggttgcc  tgttcactct  gatggtagtt  tcttttgctg  tgcagaagct  3600
ctttagttta  gttagatccc  atttgtcaat  tttggctttt  gttgccattg  cttttggtgt  3660
tttagacatg  aagtccttgc  ccatgcctat  gtcctgaatg  gtattgccta  ggttttcttc  3720
tagggttttt  atggttttag  gtctaacatt  taagtattta  atccatcttg  aattaatttt  3780
tgtataaggt  gtaaggaagg  gatccagttt  cagctttcta  catatggcta  gccagttttc  3840
ccagcaccat  ttattaaata  gggaatcctt  tcccattttt  tgtttttgtc  aggtttgtca  3900
aagatcagat  ggttgtagat  gtgtggtatt  atttctgagg  gctctgttct  gttccattgg  3960
tctatatctc  tgttttggta  ccagaaaagg  aaactggttt  attcttgaat  ttattcattc  4020
aataaacatt  tgtggaactt  cctccagtat  gtaccaggca  ctttgctgtt  gatgggaata  4080
ctagtttcag  agttttgctc  cagagttcac  atggctctgt  cagttgcttc  cttaggggaa  4140
aaaagaaaag  aaaaaaaaaa  tccttaaaca  agagcttact  atcttctggc  atcccaatgg  4200
gttcatacat  ccagccagtg  aggattggat  tcacaaacag  taggtgtctt  tgaatgcctg  4260
tagcttttgc  aacaggcatt  cagagcttac  atagatagca  acagagctta  catagatagc  4320
aaaccagctt  agatactttt  acccagtgtg  ttgtctcttt  gcaaatctgt  gtgtttatca  4380
tgccaggcac  tgtgtttctt  tcaagtggct  cagttttgaa  gtggtaggtc  atgccaaata  4440
cctaacttta  ttgtatctca  tgtaattttt  attagtgtca  tctcgtgttc  tcttggattc  4500
ttggatatca  gtgtaataaa  aatgaccttg  gttaaaaata  ctaatgtggc  actgtaaaac  4560
tgtcagcatg  tcttgaaaag  gccaaaactc  actgaatagt  aacacccttt  tagatgttcc  4620
cttaggacag  gctttttta   aaacatggct  tctgaattat  atctccaagt  tccctgtcca  4680
cttgggcttt  ttagggctaa  tgaaagcaaa  gtaagccact  actcatatcc  ctattcagtg  4740
gttgctgaca  ggattctact  tttttttcat  ctctgcagta  ttgagtttcc  caaagccaga  4800
tatggttccc  tcccactttt  gctcgaagtg  tcctttgctc  ctaacaagtg  gcagtctact  4860
gtgttagctc  ggccatctgc  cttcccacag  cagggattga  cagaggcagt  ttgtgagaga  4920
accttatccc  tgggttccag  atttataaac  taatattttt  tctttaggga  agatttggtt  4980
ttcctctagg  aaaaatcatt  taaattaaga  aaattacttg  tttgattgat  agagaaagag  5040
tcctgttaat  tatctcagta  tacactacat  gtaatcatag  tttgaagata  tttgaaataa  5100
tcagaaacac  cgattttcat  tagggcagtg  tttcattagg  gcaatgtaaa  ttaaaatcac  5160
aatatacact  tccattagaa  tggctgaagt  tgaaaagaat  gactgtacca  atattggtac  5220
aggattggtg  aggatatgga  gtaacaggaa  ctctcattcc  ctgctggtgg  gaatgtaaaa  5280
tggcataacc  attttagaac  attgttgggc  agttttttaa  caagtgaagc  atagacctgc  5340
catatgatca  gccattcacc  tgctaggtat  tatggcgatt  agaaagcata  tgataaaggg  5400
gaatgtctat  aagtccacat  gaagacctga  acacgaatgt  ttatagcagc  ttcatttgta  5460
atagtcaaat  attgaacaca  gcctaaatgt  ccatgagcag  ggggagagat  aaactgtgat  5520
agagccacac  aatggaatgc  tgctcggcag  cctgccaagt  agcctcaaca  tggatgaatc  5580
ccaattctgc  tgagtagaag  cagccacact  ttaaaaagca  ctacttgctc  actggttcta  5640
cttatataaa  atctagaaaa  tgaagactga  tttattgtga  cagaaagtgg  atcagtggtt  5700
gcctgggaac  gatcggcaag  ggagtgatta  cagagagtca  tgaggaaact  ttcagaggtg  5760
atgagtgttt  attatcttga  ttgtagtact  ggtttcacaa  ttgtttatgt  gtcaaaacat  5820
tcaaattata  cattttgaa   tatgtacagt  ttattgcatg  tcagttgtct  cttaaagctt  5880
ttttacacct  tcctatatgt  ttccattcag  agtgtagctt  ccattggcaa  tactttaaac  5940
agcgtccatc  ttgctgtgga  agcactacag  aaaactgtgg  atgaacacaa  gaaaacgatg  6000
gaattactgc  agagtgatat  ggtaaggaga  cccagcaagt  cagcatgctc  ctgctcaccc  6060
tttttgtgt   aagagtcatg  ttgccaactt  tccactaatc  tgaaaaggcc  ctgctatgca  6120
tctgttcaaa  agatctaata  agcagtatac  attgattgtt  ctacaatttg  ttaataaagc  6180
aattatggta  gataaaatta  aaagccaaat  cttttgcaaa  catagtactg  gaggaggtaa  6240
ggtaataaga  cacagttcct  gaggatggaa  tgggtaggac  agaaaatgga  aaagaaggaa  6300
aggaagtgga  aaagtgtctc  attgtttatt  actacataac  aaagcacccc  cagaagtttg  6360
tggcttaaaa  caagtaatta  tttctcacta  ttctgtgcat  caggaatttg  agcaaggctc  6420
ttagactccc  aaatgctgaa  acatgtgctc  gtggatgaaa  ggcaggctgt  ctagcatgtt  6480
ccagctccag  ccaggctgtc  agttaaatgc  agcctacaac  acatggaaca  gcaccacccc  6540
catccctcaa  cccccagctg  agcccagtca  acccacagaa  tcatgagaaa  tacttaattg  6600
ttgttgttct  aagccacaaa  gctttgggat  aatttgttag  gcagcaacag  ataactgaca  6660
gaatcaaacc  cctgcagtgc  ctaggaattg  ttttcaaata  tctctggatc  acttagtgct  6720
gctgcagatg  taagctgtct  gcagtcattt  ggaggcctta  atcaatcact  taatgggtga  6780
cagccccgtg  aaggatttat  gaagagtaaa  aaaaggatgg  tgcagccctt  gccatcttgc  6840
tggggagatg  agttatatgt  aactcatctg  aaatcaggac  tattcaaggc  acacaaaagt  6900
tccctagtct  ctctgccaat  ttctggatct  gccctcccac  ccccacctgc  tctttgcaag  6960
cttcagaatt  tcaagtttaa  attgggaagt  ttgtaccaag  gagacctggg  ctatattaga  7020
```

6834

```
gagctctaga agagagtttt tttccatttt cttcaggact ggcacacctc actgttactt      7080
agtggggcta acccagagga aaaaacattg atctgggtgt caagaccctt ggttctggtt      7140
ctaactgccg ctgagtaact gtgtgaccca tagtaacaaa gacccctcta attcagcaat      7200
tctttttatta ttttaatatc ttgattatgc tctcaagtaa ttcactattt tctaaaataa     7260
tttttcctaa ctaaaaaatt tcctgccttc tagaaccatg gattccccc tccttctctc        7320
ctccttttct ctttattgtt gccttttggt tttcttataa aaacagggtt gatttcagat       7380
ttcaaggaaa acaacttatt ttcaccagtt gcattctgtt ataattaaat ctacttcttt       7440
taaatttcca tagctgccaa tggtaatcct cctactgtca ttctttgtgc tagataagtc       7500
atagttatgg gctctgaagg gttaagccat gcaaagtttt cctcactaaa ggaaaagtgt       7560
atataaacat gttatacttc agtctctgga aagaaacttg agcagtggga agggaatggg       7620
aaaggaaaga taaccctcaa acataagtct tacttagcat aatgctataa gggaaaaact       7680
aataatgcac atgattggtg gttatgctaa atgcccaagc cagtggttac atgactggct       7740
gccttttttaa tgtcaaagct cttgagtcca gtggaaacaa tgacactgtc ccaggttgag      7800
accgagttgg tccctggaaa gttacagtga tgctatagtt tctctgggag cacaggcaat      7860
ggggcaaagg agaaatggtt tctagagagt tcattccttt aagagattga gaaatagact      7920
aggaggatct cagttcccta atgtaatctt ggtgctgctg gcctagtgca tgctcaagct      7980
gggttctctc agaacctagc acaagactgg ttagcctgta cattccctgg caatacttac      8040
tgattaatct gtggatgcat tctggggggag gctagaatgt tctaggacaa tctcagatag      8100
ttaagtagac ctaataattc cttgttgcct acactaaact tctttcctct taacagaatc      8160
agcacttctt gaaggagact cctggaagca accagatcat tccgtcacct tcagccacat      8220
cagaacttga caataaaacc cacagtgaga atttgaaaca ggtgcttttt atctctggct      8280
taactccctg tgaccacagt gcactgcaga ggcagccaaa tagtttgggc ttagtgtttg      8340
gtgtctcagc aggtgcatcc tgtatttatt tgcctgcctg ggagctgagc agagaggaat      8400
gtgtgttggt atctcgggga tccatattgc tgtcctttcc cttctttggc actttgcagt      8460
ttttccctgc atgtcagtca gtggagtaaa ttccttttct tatcttgaaa gacatagaat      8520
gagcagatta tcctgaaact ctttatgaaa aaatagctat ctgggcaggt taaagatgaa      8580
tggatagcta agtaatccag agtgatggct attttgagcc acagtaaatt ctaagaatgt      8640
tagaaagcat atccttgaaa atcaggattt tctaaagtct aaagacgaaa aggcaagagg      8700
gggaaaaaag actttgagtt cagaatcaca ttaaagagaa tagaggaaat cttcactcag      8760
aagaattcct gtcctgagtt taatgccctt taaaacctat agttatcatt ctttttaaag     8820
tagcaatcag tactggagga tgtcagtaaa aataattgaa tcttatacta aacaatgcac      8880
tacttgttat ggtattgtta catgagccaa ttcagtaatc ggtattgttc ctgaggtagg      8940
tttgttctga caaattaggt taatggacct ttcatttaat aacccagcaa gcctttcctc      9000
cagcaggtga ggtaaacatt ggggaaatca attcccaagc tctcagcttt ctgggaccaa      9060
agagtgaatc atgtaggtag tcctcttccc tctttcccc tcctgtctag ctgaggccaa      9120
acaattccaa aaggagcaat ttagagtgcg agggacaaag caaagacaga cgattgatgg      9180
tcaaaaccag.gaaaaggagt ttacttcagt acttgacata gtaatggttg ttcggtgctg      9240
ctggcctgct tgtctaattt acgtctttag tggattccat aactttattt atttccactc      9300
taggatatcc tgtaccttca caactcttta gaggaggtaa acagtgccct agtggggtac      9360
cagagacaga atgatcttaa actcgaggga atgaacgaga cagtcagtaa tcttacccag      9420
agagtcaacc tgatagaaag cgatgtggtt gctatgagca aggtagaaaa gaaagcaaac      9480
ctgtccttca gcatggtaag cctttctga tcttttgtga catgcagtgt gttttgtctg       9540
tgcatggata acattctacc accttttgag aacagccttc tggcatattt gagaggccac      9600
acatttgtgt tgtgcttaat cctcacaatg tgttgtctca tttaatcctc acactagctg      9660
tgtgatgtga atggccaggc agtgtttgtc ctgatttgga gagggagatg cggagaggtc      9720
gagtcgctta ccaagccctc accactagtt gttggcagag atgacaaggc tactgtcatg      9780
ttaccagtgc gccatctggt agggaagtgc tggcacgtat ttccgagggc cttttgggtc      9840
ttttctttt taagttatta ggggtgggag ccatgaaaat gatagtaacc aaaaatcttt      9900
tatcatttct ttaagcctga acttggcttt catatttatc ctgctgtcta tatattaagg      9960
ggaacctttt gcgtatgtca ggaaacagat caggtcagat cagctcccca acttaagagg     10020
tcattgagtt cacctcctca ttttacatgt aaggaaactg acctactaag tcactgatgc     10080
tggccgactg tgcacggctt actgattttc atattgttgt gaataaaatg tgcagtttca     10140
cataaacttt gtgcagggat ccacatggat tctttttta ataactgcag ccccaccct       10200
taaagatttc atatagcaaa gacacaggca tatatttaaa aatagaaacc aaatacagga     10260
aattgtgcca taaattcaag taaccaccaa agctggaagt aagcccacaa ataaagtcaa     10320
actctggttc atggaaagca gcatttgaac tggctctgcc acagtggagc cttggcaagt     10380
tgcctggact tggctttgaa gggtggagtt ggaagacctg ttcccctcc tgctttacag      10440
agttgtataa tttactacaa agctgtgaag attaaaggag ctttatttta cgaagccctt     10500
ttgaactcag ctaaactagg ttggctaaga attttggatg atgagtatta tgccttgaaa     10560
gtttttcaagg cttattgtga aaacttacca ctcctaaact ctctttactg tctctgccct     10620
ctcccccctac tttatatttc tccagcagag aaaataggta atagtatcca tctgtcctac     10680
```

6835

```
tgtttcttag agcagtatcg tgctcagcat ggtattttga gtaaaagttc taccaccttt 10740
tatccttcaa agccttaaag tttgtgactg aaacagctag aagcactagt ttcaacttcg 10800
tctctggcct ttctcctct ctcctcccat ctcccactcc tctgcaattt ctgttgagag 10860
tgttctgaga tcctttaaat aagtttgacg aatttgttta aaagtgctag gtgttcaagt 10920
tttaatgttt gcctttaatc ttcccttgt ttgtttgttt ttgttttgcc cttaagatg 10980
ggtgatagat ctgccactct gaaaagacag tctttggatc aagtcaccaa cagaacagat 11040
acagtaaaaa tccaaagcat aaaggtaaat aatgggaggc ttaccctgaa gtaaaagtaa 11100
atgcagcagc atctctgtgc ttttgatcta ctgctacttt ttcaaagggc gtacttttgt 11160
tctcatgtgc tgaaacttca aaacaaagca attagtaaat tagtatgtta gtgaataaat 11220
gaatacttt ttaggcacct accctgtgcc aaacacttta gtaggagctg gggggaccat 11280
agtgagcaag gcagacatgt gaccctatt gtggtggagc tcaaagtcct gtcagtcaga 11340
aaatcgttaa cacataattg aacaggtcat gaatcatgag tatgataagt attataaagg 11400
acaaatacag gatatgataa gatcaagaag gcttccctaa ggaaatgact tttacactaa 11460
gacagtaagt tatctgtact aatgatgggg gacagaggca gagataatct aaaaatggtg 11520
tctaatctaa aatttatttc ctattttgt attgcaatct ctatgtattc atagtccatt 11580
taaacctcag ccagttccct tcaccttgta ccttcccctt ttttgttctt cctagacata 11640
ctgtcaagac agcaatctat gatatgcttt gatattccag gaaagaaagt gtgattacag 11700
tattctctga ttagagtgtt aaactctggg ctaagataaa agaaaagcca ggaagattat 11760
gaccaagtga ctaaattacc atctcaaatg catattatgt ttgagaagtt gggaggatct 11820
gaggttcaga gaaaatgaac ttgaactgga accacacagt aaaggcagct tttgatgtaa 11880
tgctttatat ctttattttt cctaccttaa tagttttata ttatctagat aaagtcacaa 11940
tatattaagg ttttaatgca tcataagcta agcttttgtt gagtttttcta actgcttctg 12000
cagatttttt ttaaacctca cctagagaag acagaaaaac ttaagagcca gatgtaaatt 12060
ttgagcacaa aaaaactaat aggtggtttc tattagaaag tagtagcaat ttcagccaca 12120
gttcacattt taacaataaa tatcagaaca caccagtaca catgtataca taaatttcat 12180
cttggcttta ctttcaggcc ttttttgttt ttaactgtca tcgcagggta tcagttcctt 12240
tgtcctacct catccaaaca tcctaaccag atacaatttc tccttaccat tagttcttca 12300
aacatttagt acctagtttt cactacatat gttcatattt tagctcccta aataaactga 12360
gtgaactact atacagtaac tattagagta gaaataagat ggggcaagag aagttaacaa 12420
ttacttatac aagaaaagta aatcaataat aaaataaatg tgtaatgagt tggtgttcta 12480
attaaacata ggatcaggac cttcacact catctaagca gttagaaatg agcctcatag 12540
aaaccagatg tctctctttt tataattaaa tgtatttgta tatgccactc ttgatactcc 12600
tgggaatgag gcagggtatg ggcgaaaaaa cttttttaaa agatacgagc aagcaagact 12660
ttgaattaga aatattacag ctccttcttt atgtcttaac agtttctgcc accagttgac 12720
tcatcaccag ggagaaacag aggaaagatc aggggaaaac ttgtggtttg tttttgttca 12780
gttgcttctt tttgtaaggt ggtaagagca tgaaattctg cctaaagtgg tctagtcaca 12840
aggtgaagca agatatttcg gaaagttatt tagttagtgt gaaatagctc ctagaaaaca 12900
agatcctgct tatttaggaa atgggtgtcg cataggcacc tgagcaaggg tacatttcct 12960
ttactgctga cacatgcatt ccttcccca tcaaccaaat gttcacagtg aatcagatca 13020
tctgtagcat aatgttccct taatggtttc aaatccagca agatacttat cagtgctgag 13080
gaccaaagac atcaccagta tatgttgatt cattctttta ttgtctttat agggaaccta 13140
ctgagggtca aacactacat gctaaacagg ctctgggaat acagtggaca cttagatgaa 13200
gtcttactac caccttaaac cttctataat ctttgttttg tgcagaaaga agatagttca 13260
aattctcagg tatccaagct aagagagaaa ctccagctga tcagtgctct tacaaacaaa 13320
cctgagagca acaggcctcc agagaccgcc gatgaaggtg agagcagagc cggcttctta 13380
atatttcatg gaggcttgag cagcttgcct ctcacatggg gagcagggaa ggtgttccag 13440
cagtactgat cgcaccaagc gagtgatgcc tgaacgcacc gagatgaagc tgatacactt 13500
tgctttcatt tagaaaaggc ccatttgta catgatttgt actctagtct attaagggaa 13560
gaattggtaa tgtttagctg gaaatagaat tctccatgct gtctgcatcc aattataggc 13620
aaaaatgtta ctgtcataga gtatattaag ccagccctaa aagttgttta tgagagtctt 13680
ttcctttctg taagtgcata acatgtattt aaaaataaat attcgccctt ctgaaaatcg 13740
ttaacaaaaa taatgatggg atctttgggt tggaagggtc tttggctta ggtatggacc 13800
tgtctaatca atattagcag atacatgagc ctccactgat ttagaccctg tgaggacata 13860
accaaggcac tggactgtgt tagctttgac cttttccccc acacaagtat ttttctattt 13920
tagaaaagca gtacaaactc tcttgaattc tcctttagta ggagacagaa ctgtggtgga 13980
atgtcttgtc ctaacattgt gctacatcat cttacggttg cactcttagc accagcttag 14040
cgggtggcac atacccctag actgggttta aagcacatct cccaggatgt caagatcttt 14100
gatatccagc cactgttctt gccacttgac agcttaagct cttaccatct aaacatgttt 14160
aatgctagct tgtactgtaa gatcttctaa tgggactgct gctgcaaacc ttaacgtaat 14220
ataatactga ttggtgttcc cttgcccaca aatatgtctc aatccaagcc tttaacttca 14280
catagtcact atgctacttt atcttcaaat gtttctctaa attaattgta tatccaattt 14340
```

6836

```
tcctaaaagg tgaccttcga tactagttta atttggtgtt agattcaata atactaaata 14400
aaaccttatg tatttgttac agagcaagta gagagtttca catcaaagcc atcagcattg 14460
ccaaaatttt cacagtttct tggagaccca gttgagaaag ctgcccaact aagacctatc 14520
tccctaccag gagtttctag cactgaaggt aaatttttat accacggggt agtaatggga 14580
atgttcaaag taataacttt ttaatgttta ttttcacttg tcaaaaatat atatgatcta 14640
acatttattg aggagatatc aagtgccaga tactttatat gcattatgtc atataatcct 14700
gataaccatc ccatgaacat aagtatttat gtattatacc cattttactg atagggaaac 14760
tgcctaagtc cacacagcaa ataattggtt gaaacagaat gcaaaccaag acagtctgat 14820
gccaaagctt gtgctttttt tttagacccc caggctggag tgcagtggca caatctgggc 14880
tcacagcaac ctctgcctcc cagggttaag caattctcat gcctcagcct cccaagtagc 14940
tgggacaggt gtgtgccacc atgcctggct aatttttttgt attttttagta aagatagggt 15000
ttcaccatgt tggccaggct ggtcttgaac tcctgacctc aagtgaccca cctgcctcag 15060
cctactgaag tgctgggatt acaagcacaa accaactcac ctggccgaag cttgcactttt 15120
taaccagtgt actatattat ctttctgtta atgttttttta gggtcttcat tcactgagtg 15180
cctcattaaa cctagtgcta agcaataaga atacagtata agatatggtc tcattttctt 15240
tcttcaagga tattacagtc taatggagaa ggcataaaag caaatacaat accatgagat 15300
tagtaaaata aagtaaaagt tgaccctgtt tgtcagggcc ctccaaaaat gaaggaccct 15360
tttactgaaa atcagcaaaa tattagtaca aaggatatga ttcacagaaa aatgtgtttg 15420
cactgcttcc agcagtgcat gttctatccc tcatggtgat gtttagtgcc tcccgatttt 15480
gtattagctg gctgcctggc aaatcacttg ctcctgtcca ccacaccttc ctctggctct 15540
tctctttagc ctagatacca ttctaccagg aacatttcct tacctccagt gactggatta 15600
ggctcctcct gtgtgctctt aaattttgtt tgccctgtt tagcacatgt cactctgttg 15660
gaatttcctg gggagataca aaatataact tcctatgggt aaggactatg tcttgtttac 15720
tcccagcccc tagcacagta cctggtactc ctgaatattt gttaaataaa tgaatgagtt 15780
acctacacat tgcaattaaa tgcttaaagc atagaagact taaatttttc tatcaccatt 15840
taaatgtgat tacttttctt ccctgttcct gactttttttt ttttctgttt tctggggagg 15900
aggggaagtg ttgtgtttaa tgggaacaca agcttcctgc cactttccat tgttaaatca 15960
atatttgatg agaatgaatg ggggaaagct attaggtcag agtaaggaat agcagtctta 16020
acacttgtgc ttcagtcctc agcataggcc ttaaatactt ttggatgact atacttttgg 16080
aatgacctga ggcagcaatc atatttttat ttgaatactg ctaccaagtg cgtagtgtag 16140
catgttgtat aaactcatgc cacaaaaaaa aagaaaaaaa aaaacagaac tcttcagcta 16200
gccacttggt gtaaggcatt gggaacaagt gtcccactgc tttcctgcct ttcagagagc 16260
ttttgacatt ttattagctg cattgctgca cctattgtag gagtgagagt agggccctat 16320
tcaggagctt gtttatagga gctccttgat ggactggacc ttgcactgca actgttttcc 16380
ctcccttcaa gctattttta ttcttcctga ataccaaaca tcaagaggcc tatttttacct 16440
aggtatggtg tggaataaat gatgaaatta aaggagtttg ggaagatttt taaagaaaca 16500
taaagctcat tgaccttctt tggtattaga tattaaatct tctatttgat tatgggggaca 16560
caagtatttt ttaaatgtta tgtatatacg gccaggtgca gtggctcatg cctgtaatcc 16620
cagcattttg ggaggccaag gcaggcagat ggcttgagct caggagttcg agaccagcct 16680
gggcaacaca gtgaaatccc aactctacaa aaaatacaaa aattagccag gcgtggtagc 16740
gcacaccctg taatcccagc tactcgggag aatagcctga gcctaaaagt ttgaggctac 16800
agtgagctgt gatcatgcca ctgcactcta acctgggtga cagagggaga ccctgtctca 16860
aaaaaaaaaa aaaagttatg tatataactg accttcctaa gtgtttgtga tgaggccctt 16920
gagaaaatgc cagaagaaac tattgataga cattctctaa tcattttggc tcaatattgc 16980
cattgaaata aaaaagatac agatcaactg gtaatattgc tcttttttctt tttactgatt 17040
tttaaaaagt agagagcatg cactttggag agataattcc tctggttctt ttttattgaa 17100
atacaattca cataccataa cattcacctt tttaaaatgc agtgttttta atccagtgtt 17160
ttttagtgta ttcacaaggt catgcaacca tcaccactat ctaattccag aacatttttca 17220
tcacccctca cagaatctct gtacccatta aacagtcact cccagtcccc tctcctgcca 17280
gtctccagca accactagtc tcttaatcac tatctctatg gatttgccta tttggggtgt 17340
ttcacataaa tggaatcata cagtatgtgg ccttgtgtgt gcttttttctt tcaatatgat 17400
tctttcactt agcataatgt ttttatggtc tattcatgtt ggagcatgta tcagtacttc 17460
gttccttttt atggctgaat aatattccat tctgttgacc taacacattt tggtctgttc 17520
atccgttgat ggacatttcg attgttctca cttttgggct attaagagta atgctgccat 17580
gaacattcat gtgcaagttt ttatgtaaac atatgttttc atttgccttg agtatatata 17640
tacctaggaa tggaattaat gggtcatatg atagccctaa cttttgagg aactcctaca 17700
ctttttccaga gtggctgtac catgttacat tcccatcagc aatgtgtgag ggttcaatcc 17760
actttctcca catcctccct aatgcttggt aaggcctgtc ttttttttatt atagccatcg 17820
tagtgattat gacatggtat ctcattacac ttttgagtca ctggttcttg agctgcttaa 17880
tttctggatc cagagagaca agtgtcacat agtagaaaga gcactggact aggtaataag 17940
aaatttgtat tctaggccag gtgtggtgtc ctagcacttt ggggaggctg aggtgggcag 18000
```

6837

```
atcatttgag gctaggagtt agagacctgg ccgacatgat gaaaccgcat ctctactaaa  18060
aatacaaaaa ttagccaggc ctggtgatac acacctgtca tgccagctac taaggaggct  18120
gaggcaggag aatagcttga acctaggagg cagaggttgc agtgagccaa gatcatacca  18180
ctgcactcca gcctgggtga cagagtaaga ctccaccaaa aaaaaaaaaa aaaaaaaaaa  18240
aaaaaaaaca ggcgtggtgg ttcacgccta taatcccacc actctgggag gcccaggtgg  18300
gcgaatcacc tgaggtcagg agttcaaggc cagcctggcc aacatggtga aacccccatct  18360
ttactaaaca ttaaaaaaaa ttagctgggc gtggggcgg gcccctgtaa tcccagctac  18420
gcaggaggct gaagcacaaa aatcacttaa acccaggagg caaaggttgc agtgaaccaa  18480
aatcgcccca ctgcactcca gcgtgggcga cagagtgaga cttagcttca aaaaaaagaa  18540
aagaaatttg tattgtattc cacttaagag ttacatgacc gtaggcaagt tactttcctc  18600
tttgagcttt ggatttcctg tcaaaactga gaaagctatg agtgtttggg attgtttttat  18660
gggcttccaa gtcattcctc cagtctccac tcagccatcc aacaagaaat ctcacaatat  18720
gccacagtct gttttatgag ctagctccta tcacataact cattaggcct ctgcattcct  18780
tttcacccct tcaacataag aataaattca ggaaaatcta aagggaagac gctggacaga  18840
gagaagatga gaccattcat tctcctgcga ttatctgtca ctgcttctac tttggcagtg  18900
tctcactgtg ttgcccaggc tggtctcaaa ttcctggcct caagcaatcc tcctgcctca  18960
gcctcccaga gtgttgggat tataggcata agccactgca cccagccttt tttttttttt  19020
ttttttttaat atatttttaa gggatcaaaa attagtcttc ctgatttagt gaaatcctaa  19080
actttaccat ttggaaacaa aatttgcgga gtagcttttc ttttagtgtt ttaaattcag  19140
ttgagactac ttttaactaa atttagctgt atgtttagac gtatacattt tttgtaattc  19200
atttttgaca gatcttcagg atttattccg caagactggc caggacgtgg atgggaagct  19260
gacctaccag gaaatctgga cctccctagg ttctgctatg ccagaaccag agagcttgag  19320
agcatttgat tccgatggag atggaagata ctcattcctg gagctaaggg tagctttagg  19380
tatctagctt catcaggcat attttagaaa tggactgcct aatatctatt tacctaacaa  19440
caaaacaacc cttacttacc catcagtcct ctagtcctcc aaactactgt agcagatact  19500
ttgccacctt ttaacttgtt tgaagaagct atataaaagt tatttttttta aagaagaaga  19560
ccatttttact tatgatgttc agaaatctat gatttcctac aaccagtaag atcttacatt  19620
ttaaaattgc cagaaaaaaa attaaagccc tcttttttttc tctttccttt ttttgagggg  19680
aggagacctt atcttttaaa gctgggaaat gtatatagag agagaataag ccacttttat  19740
atttcactta aatttgcctt aaattagctg cactttatag agactcagaa aatgtctttt  19800
ctttaaaaga taggcctttt ctgtttgtaa atatttaaat gaaagaaagc attgtgcata  19860
ttgtgtggaa agtaggaaga atggttttga acaggatatg aacaaatgac ttattaaaaa  19920
ttgctgatct ggtgtaggtg gcagctgaaa ctacatccat gtctccataa ggtatccctc  19980
aaaggcccag gcgctgccag ggggtttgtc ctggtagctg gaggaaccga tttcagggag  20040
tagacactgg agacaatact gactccaggc atggctcatg gaagtaggat tctggttctt  20100
tgttcctatt ccctcagcta atcccaacct gggaatcaga gaagtcttgg ggatttttct  20160
cattttttagt actatttcag ggtttatgag cataaaaagt tatccattgg ggagctccat  20220
tttccctgct gagtgagcta gattgccttc cccacccacc cacttaagtc tgtcttaaag  20280
ccgtagctgg ctcccaccac cagtaccatc tccatttgaa tggcagggct aaattccccc  20340
agccattatc tcacactgac cacccagagc tttagaagag agctgtgctt ctaattttga  20400
cccagaaaac catacccctt gagattttac ctagaggcta accaagagcc taatatgttt  20460
ctctggggga tgactaaagc caaaaaggct gtgagatgaa acatgtgaaa taatattcag  20520
tttccttacc attaccagct cagaagtagc tagaggcttt ctacccaaag gatgccaaag  20580
tatagcaggg caggcctgga gctagggcct tcacatggtg gtagcaagtt tttcaaatct  20640
aatacaatca agtacaatac ttcctttaaa tgcttctgtg gacctggcat gaaagatccc  20700
tagattgaaa ggaataatac ctccatgtct cctgtatgtt gagtctagaa ttgctgtgtt  20760
gttcttagaa gcagtctttg ggcaacaact tgaaggggga aaaaaaact acaaaaactt  20820
aactttggta taggccaagt cagggagaaa gtagagaaag ctgtcatgcc acagacttct  20880
ttagtggaga tcatttcctt tttaactttg ttcaggttgc ccttcaccat ggatacagtc  20940
cggtaccctt aaacatttaa gggctgtttt ttttttcttt acatgatgtt cagcttggta  21000
ttaaccaaac ttaaattttt tttccagaag tattaaaatt tagttaaagc aagatgaagt  21060
cttttcccat gaatgtgtcc ccttatctca ttatagctta tgctcagttt cactttcttg  21120
gaaaggttaa aacaaattag cctggcactt taggtaactt gaaaataact ctcacccttc  21180
tgactgcctt ccatccactc tcaccccaca cctttttttta atatatatac acccttacag  21240
attttctaac aaccaaataa aattctagca ataaattgaa ttatactgct atatttgtat  21300
atactgtacc ataaatagta tgtctgtacc tggaaggtat ttttttgaga actgatttat  21360
atgaaatata cttgagggta atgtagcttg tcctttttag tttcaaattc ttattcatag  21420
gcagatactt tgaagacacc ttaactcttt gttgtgtgta ttttcccttg catcagataa  21480
ctatacatgg agaaatccat tttgttttt ggtttatctt ctgttcttcc taccttgtgc  21540
ttgtctgact agtatcaccc ctgagccagt atacagtacc atcctctccc cctaccaagt  21600
ttggcagagg tgtttatact gcattctcag atctatgaat atttttgtca tcctgcctga  21660
```

6838

```
gaaagtacat cttccaggca aaagtagggt atcttgaact cctttcttct gagttgagca   21720
gactcactgg cttaagcatc ccataagcct attatttagt gtgaatttgg gacttttatt   21780
tgtatgttgt cttaacttac taagcctgtg acttgtattt agctgtagtc aagcctcacc   21840
agccatatct catctctgag aggaagactg gatagtgagt ttggttttgg ttttggtttt   21900
aaaccctttt accttttcag tctggcagct cctactgctg ctttcctaag ttactcaaag   21960
cactgcttct tggtccttgt tttcttttgc cttgtactat cttgtataat gtttactaaa   22020
agagcctccc cataaatcag agaggcaaaa aggtagcata taaaaagaag aaccaaaaga   22080
agagaaaacc tgacttctag atgactgtgg tgtcatctaa aaggcagagg tgcctgaccc   22140
tcaggaatgt gtatgatgca acagagctga agaatgggtt cccttcacct actgctggcc   22200
attgtccctt ctgttggaga ttcctttctt tatggttgct gttcataacc ccttcaacac   22260
cccccttgc tggtcctgcc ggtcacagtt gaggatttg gctgtgatgg gctcatactc    22320
ataatggcct gttgagttgt ttttagtgac aggttttgtt tgctgcacac ctcattggct   22380
tgcttaccaa caccagctag aagtggtccc tctttcatat ccaaaccaga acacatttgg   22440
gtattcctga gactttatag agcgtgtatt gtttgttata cgaacctaac ctaccttgtt   22500
gttttctcat attaagaaat ttaaatctac tttgttttag tgaagctatt ttggtaatgt   22560
ataagcaatt ttggttctgt ttagggagaa ttcagggttt ccatgacttg atttgagctt   22620
tgcatatttc aaataagtaa cacagccatt ttaatttagc taaataaaaa aatttctttt   22680
ttctctcaa                                                           22689


<210> 9237
<211> 1754
<212> DNA
<213> Homo sapiens

<400> 9237
cttttttttt tttcttttaa tgtttcatag catgacatcc aggtgggtcc tgacctctgt     60
caataccacc ttcctgaggt tagttccatt tcctactctg cacctgattc ctgcagctcc    120
caccttcagt gagaggaggc tacagttctg aaggaaaagg cttggcattg aagctatggt    180
cttcctgggc cagattcagg agggaatgga agagaacatt cctttcagga caggtggcca    240
aaggatagga gacagagtgg ttcagcaggg ggggtaggtt gcacaagggt ggggcaaagg    300
gcacctcctg aaagatggga agtgggaatg gggatctggc ctggggctgc tgtggagcca    360
gctgcagtgc aggttgcagg ggagcagggg cttccgcctt ggggttgctg tcttggtcag    420
catggctcct gccttcgggg atgtccaaat cccacagaac atctggattc tggacctcag    480
tctcagtctt ggtgacagca ggggcagggc ccgtgttgat ggctgcattc atgccgtagc    540
gccgtcgctt gttaatccag tacaacaatg ggctgtaggt gaatgtggca gctctcatca    600
cctccaccca ctgctgggca tgctcttccc gcctcaagtt cttcctccag tgcagaaaga    660
taatgcaccc tccagttatc acagaacaca gccccaggat tccaaagtac aatgagaccc    720
acactaaggc agcaagaaag aaaaagaggc atgctggctg atagctgtag cttggggcct    780
gagctgtttc tcattcctct ttcacttaac ccatgcatca atcgctccat ccacttaact    840
actctcaccg ttccttccct cccttattga cttgcctcat cattccctta ttcagtcaaa    900
gctagatttc cagggagctt aagcaccacc tttaactctt tacagatcac aaaagctagg    960
tctagcgggg gcatgtgctg cccaggctca gtcaagcctc tgattcctaa cccaggaccc   1020
atccaatcca tcagactgag aagtttcact atgggcaagt ccatcaagaa gcaaaagttc   1080
accagcactt tgtgaggccc aggtgggcag atcacttgag gtcaggactt caagtccagc   1140
ctggccaaca tggtgaaacc ccgtctctac taaaaatttt aaaattagcc aggtgtggtg   1200
gtgcatgcct gcagtcccag ctacttcaga ggctgaggca ggagaatcac ttgaatccag   1260
gaggtggagg ttacagtgag cctagattga gccactgcac tccagccggg caacagagc    1320
aaaacttcat ctcaaaaaaa aaaaaaaaag tgaaagttca tcagttgaca gagacaccaa   1380
tgtcccatcc cattccattc agctgtgata gtcctgggct attgatagta tcttctctgg   1440
ttgatcagag catggtcttt gccttaaaat aattcttagt tttctagagt agactatctc   1500
ctaactgctt agctctcctc caggcagcca ggcactgtcc catccatgca aagggccttc   1560
cctgagtgtt tgtccccaag ccctaaggca caagtccagt gacagggact ggaggagcac   1620
ttactcccag ggaagcgcag gtcctcctgt tgggaatcca tacagctgag ctttggtacc   1680
tggccgatgg ctctggggag agggaactca cccacccatc tgcccagcca gtcagcccat   1740
ctgcccagcc aatc                                                     1754


<210> 9238
<211> 6994
<212> DNA
```

6839

```
ggcaatggtg gcttgctatc cgggaaatgg aacaggttat gttcgccacg tggacaaccc      60
caacggtgat ggtcgctgca tcacctgcat ctactatctg aacaagaatt gggatgccaa     120
ggtacttttg aataatggga gtagagtgtg gggttagaaa ctacaggaaa atgattcaga     180
taacttagag gagagtttat attgagttca tagttgccgt atctcccact gatgaaacat     240
ttctatttcc atttcataac ctcctgcgac aatggaatta gtcctaaagt tgttaagaag     300
aaaacaatga agttaatttg gagtggggta ggtagggtga ttattaaccc tacctctggg     360
aagggtggtt gatgaaggga aggtaatttg atattaggat taaggattaa ttttttttcag     420
tttaattcag agttgttctg actcaatgca gaataggata tacacttttc cctcccagca     480
gcagcattga gaaagttcca caaaaataga actgtaggct ataaaaccat ccccaagaga     540
gatttcccac acagtcctct ccctcggggt ggtatgtctc attgatggct gcttgccatg     600
gcttactatg gtttgtgaat gccaaaggct ttgtggctta tttttgtatt atagaactta     660
tagatagatg gagatatgaa gcctggttcc atgcttacag acattcatct ggactctgta     720
tgctttccga aagttaagaa tgatttagga gtctgggaag tcagataact tttcaagctt     780
atttggcttt tgaaccttct gcatctcaat ttcctgttca ttaggcaaat actggctgtc     840
ataaagcaat aatatttatc cagagtcaga aaaacgaaac ttgggaaacc attgaatcag     900
tgaaaaggcc tatctcttct ccctgtttgg taacatgact ggaatacatc cattaagtct     960
cctttaaaat cttgagaggt gctgatagag acaagagaat aaagttatca gactggtaat    1020
aataaattgc aaggtctgga atcatttaac aaatatttga gttcctgcta gtgtcaggcg    1080
ttgtattatg aagaaacatt gatgtgtgag gcctgaactt tactctgaat atggttattc    1140
tagtaggatg aaataggttg acatgtaaaa aaaataattc aaggaagaga gtggtgtatg    1200
tcataaaagg tgcagattag gtggtctgag agttcagtaa aaagagcatg taacttccaa    1260
ctaatgaggt cagataggag ctaagggagt tcagaagagc tgtaaattct aattgaaggg    1320
gaagttacat gtgatgattt tcttagaaag ttgttaatgg ttagatggaa ccatgtgaga    1380
tcactgggca ttttttttta agtcaaaaac actcaaatat tggcaaatcg gtatgattca    1440
atctaatagt actctatttt acgtccatgg gctttatgac tgtggggggt gggagtgctt    1500
tttttggttt aaggtgaata aggagatatc tctagctaag tttgatataa aatttggtac    1560
gaagtggctg ggcgtggtgg ctcatgccta taatcccagc acttcaggag gccctagtgg    1620
gcggatcacc tgaggtcggg agttcgagac cagcctgacc aacatgggga aaccccgtct    1680
ctactaaaaa tacaaaatta actgggcatg gtggtgcatg cctctaatcc cagctactcg    1740
ggaggctgag gcaagagaat cacttgaacc agggaggtgg aagtggcagt gaaacgagat    1800
cgtgccattg cactccagcc tgggcaacaa gagtgaaact ccatctcaaa ttggtacaaa    1860
ctatgaggtt gaagtaaaaa tctggggtac catgcatttg gagtggtggt tagcagatgg    1920
catgtttcta aatggagctg aaatatggtt gttgataaac tacatgagag gtaagaaata    1980
atccccttc tttgtgtctt tcagctacat ggtgggatcc tgcggatatt tccagagggg    2040
aaatcattca tagcagatgt ggagcccatt tttgacagac tcctgttctt ctggtcagat    2100
cgtaggaacc cacacgaagt gcagccctct tacgcaacca ggtaatagcc ggagccatga    2160
ttcctcttcc ggagcttggt gtacaaaccc tagttccaga gaactcttta aacgtgtgtc    2220
ctgtgcatgt gggggattga ccacacccca tagctgatag caaacttgtt tggagtctac    2280
aaaaattaaa ggggaaactt tgcgtcttt agcatatcaa acctaacctc agtttgaaag    2340
tactattaac aagttgtttt ctattagatg agcatattgg attccaattt ctcaaaagta    2400
ttttctctt ctctcctttc ctcccttctc ttatctctct ttcccttttt ttaaaaaacc    2460
taatgttgaa ctatgcctag agaatgttgg ctgtcacata tcaggaattc tgtctggtta    2520
ctttggatga gtttacaagc tgctaattgc aagcagagaa agagccttga gaagagaaag    2580
agtaatttgt tttgactttc tcttttgtc ttttccttgg tttgaaattg gcttgggctt    2640
gctgtatcca tggtccaaca gttggatgtt ttattaatct tttctttatc atgtgcacat    2700
gaagattctc agagtaactg aacaccttag tattgtttag gaccaatcta gacaatcttg    2760
acaaaaaatc ttcattctca attctgcctc tcatttacct ttgtctgtgt ctaaagcaat    2820
aagccgggca gcattggagg gctatggagt gcagcttata ctgagactag cattcagggg    2880
caggaggaga gaattttggt aggatgatga ttaaaccccta acaagcctaa ttaaattaag    2940
atcacatgtg ccctcctccg gaagtcacac agcttagccc caaacccagt tatatattaa    3000
ctgccaaatc ggaatgtctt ctagatgagc agggaacgaa ttctaccact gaagtcagct    3060
tttgtgtttt atggggtatg taactaaacc ctgttgtttg tggcagaagt ctttggttat    3120
tccccaatct catgatgact ggccttacag ggaaaacatt agcaaatgtt gatgagaagt    3180
cccttgaaaa aaactcaagt gctatagaaa ttgttagcta cggaagtagc taacaatcat    3240
tacaaaatga aactttaaaa aaaaaccaag catgaaatgg ctcccattac agtctatcca    3300
atgaatggga taaagcaaat tagtggggat gcagtagaaa gctctgggc attattatta    3360
ttcaattgca attttgcctc aatgtccaaa actaaagaaa gcaagccaag agttttaaac    3420
atactgtgat ttacataagt cgttttcaa agcttcactc aaatgtcatc tcttctctat    3480
```

6840

```
gttctcgcca ccaacttggg tctcccagtc tttagcagaa tgactccctt ctagtccttt    3540
ctgtagaggc tatgtttacc tgttgcatta ttgcaaaatc acctgtctcc cctacttgga    3600
gcctgagatc gcagaggaag atctgatcac agggtcattt gaattcctaa tgcccaagat    3660
aatttctggc acatacctgg aattccttat gcattttatt acattgaaat agaattaaaa    3720
ccagagaagt taattttaaa ttaaaatcag cgtagacagg ccgggcatgg tggctcacac    3780
ctgcaatccc agcactttgg gaggccgagg tgggcaggtc aagagatcga gaccatcctg    3840
gccaacatgg tgaaccccca tctctactaa aaatttaaaa attagctggg tgtggtagcg    3900
tgcacctgta gtcccagcta cttgggaagc tgaggcagga gaatcgcttg aacctgggaa    3960
gtggaggttg cagtgagccg agatcacgcc tctgcctggc aacagagcaa gactccatct    4020
caaaaaataa ataaataaat aaataaataa ataaataaat aatcagggta gacttctaat    4080
aatagagaaa actttaaaac ttttaatgtg agatttatag gacatttgtg tttctagtag    4140
taccattaaa tctctttcct tatatctgct tatctttcac agatatgcta tgactgtctg    4200
gtactttgat gctgaagaaa gggcagaagc caaaaagaaa ttcaggaatt taactagtat    4260
gtgtttgata attttctgtg acttttgatc aagttaatcc ttgactttta ttcaatttta    4320
tgtagtttta aacatgttct gttcaatctg ttacggctta gctttatata taatgacatc    4380
ttgatgggtt ttatcctgaa accttggcct tagggctctt agaaaaatca gaaacaatgc    4440
aaggggcttc ccctgagaat gcccactgaa tgtatgatgg tttatgatag atgggaaata    4500
gttaactttt tcctattaat gttaaccagt caaatgtaac attaaatttt gcccatgatt    4560
tttggcatat tgcaaaggaa atataatgga acccagttat gatggcaaaa tttattatat    4620
tgggtgagac tgtgactctc agtataacag cagggctcat gtaatataaa ctgaatataa    4680
cagcactact cctatccctt ccaaccagta ttagaaggca gcatttccca aaatacgttg    4740
cattaaaaca caaatcctgc caatttggta aattcctggt cccaaaaatg tgggaaatgt    4800
tgcatgctgt atgcctgtct taaaaagagt cacattgctc actagcatat taaattaagg    4860
cgctaagaga tcctgcagta aggaaacata tataatattg cctagcccat aacccatttg    4920
gactgtatac ctctcaaata ccaaagtggt ctccaaattg cacccaggaa atctcagttt    4980
gttttctctt ccagatggcc tacactgctt aactctgata tgtgagtgag gctacacttc    5040
atacaactta tgctcagcat tagcccaaga ggtgccaatg ctggatgtaa acccaaagtt    5100
cctccacagt ctgtgaggca tatgggaaag atcccattgc aaagtcaaga gagaatcctt    5160
tggcagagct ctattaggag gcttatataa gatgggaagt gtttactgga ggctttttgg    5220
tgacatttgt gacataaaac tcatcagagc tgactccata ccctctttat tctcctttct    5280
gtccccaacc cagggaaaac tgaatctgcc ctcactgaag actgaccgtg ctctgaaatc    5340
tgctggcctt gttcatttta gtaacggttc ctgaattctc ttaaattctt tgagatccaa    5400
agatggcctc ttcagtgaca acaatctccc tgctacttct tgcatccttc acatccctgt    5460
cttgtgtgtg gtacttcatg ttttcttgcc aagactgtgt tgatcttcag atactctctt    5520
tgccagatga agttacttgc taactccaga aattcctgca gacatcctac tcggccagcg    5580
gtttacctga tagattcggt aatactatca agagaagagc ctaggagcac agcgagggaa    5640
tgaaccttac ttgcacttta tgtatacttc ctgatttgaa aggaggaggt ttgaaaagaa    5700
aaaaatggag gtggtagatg ccacagagag gcatcacgga agccttaaca gcaggaaaca    5760
gagaaatttg tgtcatctga acaatttcca gatgttctta atccagggct gttggggttt    5820
ctggagaatt atcacaacct aatgacatta atacctctag aaagggctgc tgtcatagtg    5880
aacaatttat aagtgtccca tggggcagac actccttttt tcccagtcct gcaacctgga    5940
ttttctgcct cagccccatt ttgctgaaaa taatgacttt ctgaataaag atggcaacac    6000
aatttttttct ccattttcag ttcttacctg ggaacctaat tccccagaag ctaaaaaact    6060
agacattagt tgttttggtt gctttgttgg aatggaattt aaatttaaat gaaaggaaaa    6120
atatatccct ggtagttttg tgttaaccac tgataactgt ggaaagagct aggtctactg    6180
atatacaata aacatgtgtg catcttgaac aatttgagag gggaggtgga gttggaaatg    6240
tgggtgttcc tgtttttttt tttttttttt ttttagtttt ccttttttaat gagctcaccc    6300
tttaacacaa aaaaagcaag gtgatgtatt ttaaaaaagg aagtggaaat aaaaaaatct    6360
caaagctatt tgagttctcg tctgtcccta gcagtctttc ttcagctcac ttggctctct    6420
agatccactg tggttggcag tatgaccaga atcatggaat ttgctagaac tgtggaagct    6480
tctactcctg cagtaagcac agatcgcact gcctcaataa cttggtattg agcacgtatt    6540
ttgcaaaagc tacttttcct agttttcagt attactttca tgttttaaaa atccctttaa    6600
tttcttgctt gaaaatccca tgaacattaa agagccagaa atattttcct ttgttatgta    6660
cggatatata tatatatagt cttccaagat agaagtttac tttttcctct tctggttttg    6720
gaaaatttcc agataagaca tgtcaccatt aattctcaac gactgctcta ttttgttgta    6780
cggtaatagt tatcaccttc taaattacta tgtaatttat tcacttatta tgtttattgt    6840
cttgtatcct ttctctggag tgtaagcaca atgaagacag gaattttgta tatttttaac    6900
caatgcaaca tactctcagc acctaaaata gtgccgggaa catagtaagg gctcagtaaa    6960
tacttgttga ataaactcag tctcctacat tagc                                6994
```

6841

```
ggcaatggtg gcttgctatc cgggaaatgg aacaggttat gttcgccacg tggacaaccc      60
caacggtgat ggtcgctgca tcacctgcat ctactatctg aacaagaatt gggatgccaa     120
ggtacttttg aataatggga gtagagtgtg gggttagaaa ctacaggaaa atgattcaga     180
taacttagag gagagtttat attgagttca tagttgccgt atctcccact gatgaaacat     240
ttctatttcc atttcataac ctcctgcgac aatggaatta gtcctaaagt tgttaagaag     300
aaaacaatga agttaatttg gagcggggta ggtagggtga ttattaaccc tacctctggg     360
aagggtggtt gatgaaggga aggtaatttg atattaggat taaggattaa tttttttcag     420
tttaattcag agttgttctg actcaatgca gaataggata tacacttttc cctcccagca     480
gcagcattga gaaagttcca caaaaataga actgtaggct ataaaaccat ccccaagaga     540
gatttcccac acagtcctct ccctcggggt ggtatgtctc attgatggct gcttgccatg     600
gcttactatg gtttgtgaat gccaaaggct ttgtggctta tttttgtatt atagaactta     660
tagatagatg gagatatgaa gcctggttcc atgcttacag acattcatct ggactctgta     720
tgctttccga aagttaagaa tgattaggga gtctgggaag tcagataact tttcaagctt     780
atttggcttt tgaaccttct gcatctcaat ttcctgttca ttaggcaaat actggctgtc     840
ataaagcaat aatatttatc cagagtcaga aaaacgaaac ttgggaaacc attgaatcag     900
tgaaaaggcc tatctcttct ccctgtttgg taacatgact ggaatacatc cattaagtct     960
cctttaaaat cttgagaggt gctgatagag acaagagaat aaagttatca gactggtaat    1020
aataaattgc aaggtctgga atcatttaac aaatatttga gttcctgcta gtgtcaggcg    1080
ttgtattatg aagaaacatt gatgtgtgag gcctgaactt tactctgaat atggttattc    1140
tagtaggatg aaataggttg acatgtaaaa aaaataattc aaggaagaga gtggtgtatg    1200
tcataaaagg tgcagattag gtggtctgag agttcagtaa aaagagcatg taacttccaa    1260
ctaatgaggt cagataggag ctaagggagt tcagaagagc tgtaaattct aattgaaggg    1320
gaagttacat gtgatgattt tcttagaaag ttgttaatgg ttagatggaa ccatgtgaga    1380
tcactgggca tttttttta agtcaaaaac actcaaatat tggcaaatcg gtatgattca    1440
atctaatagt actctatttt acgtccatgg gctttatgac tgtggggggt gggagtgctt    1500
tttttggttt aaggtgaata aggagatatc tctagctaag tttgatataa aatttggtac    1560
gaagtggctg ggcgtggtgg ctcatgccta taatcccagc acttcaggag ccctagtgg    1620
gcggatcacc tgaggtcggg agttcgagac cagcctgacc aacatgggga aacccgtct    1680
ctactaaaaa tacaaaatta actgggcatg gtggtgcatg cctctaatcc cagctactcg    1740
ggaggctgag gcaagagaat cacttgaacc agggaggtgg aagtggcagt gaaacgagat    1800
ggtgccattg cactccagcc tgggcaacaa gagtgaaact ccatctcaaa ttggtacaaa    1860
ctatgaggtt gaagtaaaaa tctggggtac catgcatttg gagtggtggt tagcagatgg    1920
catgtttcta aatggagctg aaatatggtt gttgataaac tacatgagag gtaagaaata    1980
atccccttc tttgtgtctt tcagctacat ggtgggatcc tgcggatatt ccagagggg    2040
aaatcattca tagcagatgt ggagcccatt tttgacagac tcctgttctt ctggtcagat    2100
cgtaggaacc cacacgaagt gcagccctct tacgcaacca ggtaatagcc ggagccatga    2160
ttcctcttcc ggagcttggt gtacaaaccc tagttccaga gaactcttta aacgtgtgtc    2220
ctgtgcatgt gggggattga ccacacccca tagctgatag caaacttgtt tggagtctac    2280
aaaaattaaa ggggaaactt tgcgttcttt agcatatcaa agctaacctc agtttgaaag    2340
tactgttaac aagttgtttt ctattagatg agcatattgg attccaattt ctcaaaagta    2400
ttttctctt ctctccttc ctcccttctc ttatctctct ttccttttt ttaaaaaacc    2460
taatgttgaa ctatgcctag agaatgttgg ctgtcacata tcaggaattc tgtctggtta    2520
ctttggatga gtttacaagc tgctaattgc aagcagagaa agagccttga gaagagaaag    2580
agtaatttgt tttgactttc tcttttgtc ttttccttgg tttgaaattg gcttgggctt    2640
gctgtatcca tggtccaaca gttggatgtt ttattaatct tttctttatc atgtgcacat    2700
gaagattctc agagtaactg aacaccttag tattgtttag gaccaatcta gacaatcttg    2760
accaaaaatc ttcattctca attctgcctc tcatttacct ttgtctgtgt ctaaagcaat    2820
aagccgggca gcattggagg gctatggagt gcagcttata ctgagactag cattcagggg    2880
caggaggaga gaattttggt aggatgatga ttaaaccctta acaagcctaa ttaaattaag    2940
atcacatgtg ccctcctccg gaagtcacac agcttagccc caaacccagt tatatattaa    3000
ctgccaaatc ggaatgtctt ctagatgagc agggaacgaa ttctaccact gaagtcagct    3060
tttgtgtttt atggggtatg taactaaacc ctgttgtttg tggcagaagt ctttggttat    3120
tccccaatct catgatgact ggccttacag ggaaaacatt agcaaatgtt gatgagaagt    3180
cccttgaaaa aaactcaagt gctatagaaa ttgttagcta cggaagtagc taacaatcat    3240
tacaaaatga aactttaaaa aaaaaccaag catgaaatgg ctcccattac agtctatcca    3300
```

```
atgaatggga taaagcaaat tagtggggat gcagtagaaa gctctggggc attattatta     3360
ttcaattgca attttgcctc aatgtccaaa actaaagaaa gcaagccaag agtttttaaac    3420
atactgtgat ttacataagt cgttttttcaa agcttcactc aaatgtcatc tcttctctat    3480
gttctcgcca ccaacttggg tctcccagtc tttagcagaa tgactccctt ctagtccttt     3540
ctgtagaggc tatgtttacc tgttgcatta ttgcaaaatc acctgtctcc cctacttgga     3600
gcctgagatc gcagaggaag atctgatcac agggtcattt gaattcctaa tgcccaagat     3660
aatttctggc acatacctgg aattccttat gcattttatt acattgaaat agaattaaaa     3720
ccagagaagt taattttaaa ttaaaatcag cgtagacagg ccgggcatgg tggctcacac     3780
ctgcaatccc agcactttgg gaggctgagg tgggcaggtc aagagatcga gaccatcctg     3840
gccaacatgg tgaaacccca tctctactaa aaatttaaaa attagctggg tgtggtagtg     3900
tgcacctgta gtcccagcta cttgggaagc tgaggcagga gaatcgcttg aacctgggaa     3960
gtggaggttg cagtgagccg agatcacgcc tctgcctggc aacagagcaa gactccatct     4020
caaaaaataa ataaataaat aaataaataa ataaataaat aaataaataa atcagggtag     4080
acttctaata atagagaaaa ctttaaaact tttaatgtga gatttatagg acatttgtgt     4140
ttctagtagt accattaaat ctctttcctt atatctgctt atctttcaca gatatgctat     4200
gactgtctgg tactttgatg ctgaagaaag ggcagaagcc aaaaagaaat tcaggaattt     4260
aactagtatg tgtttgataa ttttctgtga cttttgatca agttaatcct tgactttat     4320
tcaattttat gtagtttaa acatgttctg ttcaatctgt tacggcttag ctttatatat     4380
aatgacatct tgatgggttt tatcctgaaa ccttggcctt agggctctta gaaaaatcag     4440
aaacaatgca aggggcttcc cctgagaatg cccactgaat gtatgatggt ttatgataga     4500
tgggaaatag ttaacttttt cctattaatg ttaaccagtc aaatgtaaca ttaaattttg     4560
cccatgattt ttggcatatt gcaaaggaaa tataatggag cccagttatg atggcaaaat     4620
ttattatatt gggtgagact gtgactctca gtataacagc agggctcatg taatataaac     4680
tgaatataac agcactactc ctatcccttc caaccagtat tagaaggcag catttcccaa     4740
aatacgttgc attaaaacac aaatcctgcc aatttggtaa attcctggtc ccaaaaatgt     4800
gggaaatgtt gcatgctgta tgcctgtctt aaaaagagtc acattgctca ctagcatatt     4860
aaattaaggc gctaagagat cctgcagtaa ggaaacatat ataatattgc ctagcccata     4920
acccatttgg actgtatacc tctcaaatac caaagtggtc tccaaattgc acccaggaaa     4980
tctcagtttg ttttctcttc cagatggcct acactgctta actctgatat gtgagtgagg     5040
ctacacttca tacaacttat gctcagcatt agcccaagag gtgccaatgc tggatgtaaa     5100
cccaaagttc ctccacagtc tgtgaggcat atgggaaaga tcccattgca aagtcaagag     5160
agaatccttt ggcagagctc tattaggagg cttatataag atgggaagtg tttactggag     5220
gctttttggt gacatttgtg acataaaact catcagagct gactccatac cctctttatt     5280
cccttctgt ccccaaccca gggaaaactg aatctgccct cactgaagac tgaccgtgct     5340
ctgaaatctg ctggccttgt tcattttagt aacggttcct gaattctctt aaattctttg     5400
agatccaaag atggcctctt cagtgacaac aatctccctg ctacttcttg catccttcac     5460
atccctgtct tgtgtgtggt acttcatgtt ttcttgccaa gactgtgttg atcttcagat     5520
actctctttg ccagatgaag ttatttgcta actccagaaa ttcctgcaga catcctactc     5580
ggccagcggt ttacctgata gattcggtaa tactatcaag agaagagcct aggagcacag     5640
cgagggaatg aaccttactt gcactttatg tatacttcct gatttgaaag gaggaggttt     5700
gaaaagaaaa aaatggaggt ggtagatgcc acagagaggc atcacggaag ccttaacagc     5760
aggaaacaga gaaatttgtg tcatctgaac aatttccaga tgttcttaat ccagggctgt     5820
tggggtttct ggagaattat cacaacctaa tgacattaat acctctagaa agggctgctg     5880
tcatagtgaa caatttataa gtgtcccatg gggcagacac tcctttttc ccagtcctgc     5940
aacctggatt ttctgcctca gctccatttt gctgaaaata atgactttct gaataaagat     6000
ggcaacacaa tttttttctcc attttcagtt cttacctggg aacctaattc cccagaagct     6060
aaaaaactag acattagttg ttttggttgc tttgttggaa tggaatttaa atttaaatga     6120
aaggaaaaat atatccctgg tagttttgtg ttaaccactg ataactgtgg aaagagctag     6180
gtctactgat atacaataaa catgtgtgca tcttgaacaa tttgagaggg gaggtggagt     6240
tggaaatgtg ggtgttcctg ttttttttttt tttttttttt tttttagttt tcctttttaa     6300
tgagctcacc ctttaacaca aaaaaagcag ggtgatgtat tttaaaaaag gaagtggaaa     6360
taaaaaaatc tcaaagctat ttgagtcctc gtctgtccct agcagtcttt cttcagctca     6420
cttggctctc tagatccact gtggttggca gtatgaccag aatcatggaa tttgctagaa     6480
ctgtggaagc ttctactcct gcagtaagca cagatcgcac tgcctcaata acttggtatt     6540
gagcacgtat tttgcaaaag ctacttttcc tagttttcag tattactttc atgtttttaa     6600
aatcccttta atttcttgct tgaaaatccc atgaacatta aagagccaga aatattttcc     6660
tttgttatgt acggatatat atatatatag tcttccaaga tagaagttta cttttttcctc    6720
ttctggtttt ggaaaatttc cagataagac atgtcaccat taattctcaa cgactgctct     6780
attttgttgt acggtaatag ttatcacctt ctaaattact atgtaattta ctcacttatt     6840
atgtttattg tcttgtatcc tttctctgga gtgtaagcac aatgaagaca ggaattttgt     6900
atatttttaa ccaatgcaac atactctcag cacctaaaat agtgccggga acatagtaag     6960
```

6843

ggctcagtaa atacttgttg aataaactca gtctcctaca ttagc   7005

<210> 9240
<211> 3844
<212> DNA
<213> Homo sapiens

<400> 9240
ggccaggcgg gtctcaaact cctcgtctca ggtgatctgc ttgcctcggc ctcccaaagt   60
gctgggatta caggcgtgag ccactgcgcc cagcctgagt ttcattttt aagtcacata   120
gcagtagtcc ttatttcagt gctagaccct ttgaaatgcg atgaaagcta tatggaccct   180
tcgctttgtt atataacata tgcacacata cccagaattt tgcacatatg ttcagagatt   240
cctagacctg cagacctgcc tctgtgtgtc ccaatttaag aacctctgtt ctttcttcat   300
gactggattt gcccaatttt gtgttatttt gggacttaat ttgtccctct ttgggacatt   360
tccttattta ttgccctctt cagagagtag atgtagaaaa taaagagagg aaacctagat   420
tacttaattt ttattttaac attttctata gatagcatac cacgccaagt gtgctctgtc   480
ttgatcccct tctttctagc atctgccaga cattgtagag tttcgcaagc agttgtaggt   540
ttgagctgca gccagtcatt tcttttattc tttaaaagta catagatttg tctttttagg   600
gctttactga aagtaaaata tcctgacatt taaactgaca gatgtaggag gtaaaaaata   660
gagttctgaa acatttgaat ttatgtgaca gctgaagtca cgagatgagg gatgtatgtc   720
ccccagggag gatgcagaaa gaagaaaagg gtactggaaa cagcatgtca gtggtgccag   780
ctgagggctg gaggcagcca ggagagttgg gagcctgggt gctgggtgga gagaggttaa   840
cagggaagac atgggaagta ttgtgaaggc tggtgtgagc aggggactac tccagccctg   900
ttggaacata gagccatttg gcagattgac aatgcagtga cagctgtata taataaatgt   960
gttgaaagga ggaaggtgag gattttcttg gtgggagttt atgctgttat ttaacatatt   1020
ttgcttccaa aggggttaag atgttttacc taaatggagg tttctaggtc agtgctatac   1080
aatatttcta atctgtgttt tatagtgtga gctacatatg taatttttaa attttcaagt   1140
agccacataa taaaggaaac aggtgaaatt taatgacata tttcctttaa tacggtatat   1200
ccaaaatatt attatgtcaa cctataatca gtataaaaac ctgttactga aatattttat   1260
agggcccatc tcagttcaga ctagccacat ttaagtgctt catagccaca tgtggctcat   1320
ggccatccat atttggacaa tgtactttag actattgcat ctgtatactc ttgtgccgtc   1380
agctggggg tggggtgtgt gtgcgtgtat accaaggcag tgagcatctg agctttgaac   1440
ctcaaagacc aaaatgccct gcccatttc ctgcttatca gctgaggaat ctttacccac   1500
attgacacat gggcttgttc tgacccaagt gcatgcaggc ttccagagca gattcagagg   1560
cctaacttag tcctttagct ttcctcccag cacagaactc ccaaggttat ctgcaagtag   1620
gccttgccta gagagactga gttttcaagt tgtcagtttt cccaaattgt cctcaagcat   1680
cttcctctgg aatcacctta ctgtttagta aacattcaga ggacttgcta cacatctggg   1740
cagtctgcat tgtaattcat atgtgtttac acatttgtgt cttcatctgc taaagcacct   1800
ttgaaccata ttgtaattca taatatctga agcaattatt atgaattgta gtaattcata   1860
atattgaagc gattcataat atctgaagca atccccagat acgggttagg catggccctg   1920
ctctgagcag gatggcaaaa gtggcagtcc gtgacgcagc ccttgttacc ccaggctatt   1980
actaaatggt ggtggtggtt ttatcttaat taaaatgaca tcaccaacaa tgggcccttt   2040
cctgtctgcc aggaaaagtt ttctgtagtg acgcacgtgt tgtgtgtgta tgtgtgcgtt   2100
tgaggctata ttactcattg ctacggcagt tcaaaatgac ttggaaaaaa acaatgaacg   2160
ctggtcattg atatgtatac tgacatgttt aagggaagtt actgtggtct gtaacttatg   2220
aaatacataa aaaatatgat gggtggagtg acggacacat ggacagatat gaagcaagca   2280
ctgtaaaata ttagtggtag ttttgtatgc ccatactcac ggcaccatta ttcacagtag   2340
ctaagagatg gaagcaatat gtgcccatca gtgggtgaat gatcaacaaa atgtggtata   2400
ttcatacagt ggaatattat tcagcctcta aaaggaagat acgctgacat gtgctgcaac   2460
atggatgaat cttgaggaca tgatgctaag tgaagtaagc cagtcactgg aagacaaata   2520
ctctatgctt ccatttatgt gaagtatcta gagcagtcaa atgcatagaa acaagtagaa   2580
tggtagttgc caaggactgg gggaggagga aatgaggagt tgtttaatgg gtatagtgtt   2640
tcagttttgc aagataaaaa gtcctgtgga ttggttgcac agttaagtta tgtgaatgct   2700
gtatgccaac tcaactgtac actctaaaat ggttaagatg gtaaatctta tctttatttt   2760
accacagttt tttttaaagc atggtaaaca ccatttccca ggatgtaaat cggtactaaa   2820
aaaaaagtgc tccaaagtaa gatatatttg ggaaacacag ggataactaa ggttagatag   2880
gtgttcttta ttgcaggaat tctaagagca tttaacaaat taatttacac tgggaatttt   2940
cagtgtggag ggtctggctc atagcatttc acaaacatta tacttcagag tcccaaagcc   3000
tttaaataaa atgttaatgg tagaaactcc ttaagggggtg ttcactgtac aattctttca   3060
acttttctgc atgctgggag tttttttggt aacaacgtgt tggggaaaat ggccttggaa   3120

```
tatttcattc aaattggagc caagctaaca caaagctgtt gctgctagtg ggaacagccc    3180
tgatgtccat gtaacaagct gccctcccca actccctcct tcctgtttct ccctcctcgg    3240
cacccacttc taggattaac aggcagggag acgggagagc ccagctctgg gtacagttgg    3300
gccacagcag aaggagggcc agggtagagg tttgggcctt ggctctgatg cttgaacata    3360
aacacaccta gtcagaagta catcagtaca aagtgggccc tacaaaatta tagggtcaga    3420
aaacaggtaa gtggttacca ggggctggga atggggagag gagtgactac agagggacct    3480
agattcttca acaaatacat tacaagagga aaagggaagg gaagggaagc ctggagattg    3540
aaagatactt gagacgtgtg aatccagtgc aatgtgtgaa ccttgtttgc ctcttgatct    3600
gaactagcca atcaatcttg taaaaatgtg cttaagggac aaagcaaatt tgaactctgg    3660
ctggatattt gatgatatta aggaaacaac atttaaacat atgacagtgg ggctatggtt    3720
atgattggtt ttgttttttt tttctctaga gactgggttt tgcagtgtta cctaagctgg    3780
tcttgaactc ctgggctcaa gcagttctcc cacctcagcc ttggtttaag aaaaaaaaaa    3840
aaaa                                                                 3844


<210> 9241
<211> 3844
<212> DNA
<213> Homo sapiens

<400> 9241
ggccaggcgg gtctcaaact cctcgtctca ggtgatctgc ttgcctcggc ctcccaaagt      60
gctgggatta caggcgtgag ccactgcgcc cagcctgagt ttcatttttt aagtcacata     120
gcagtagtcc ttatttcagt gctagaccct ttgaaatgcg atgaaagcta tatggaccct     180
tcgctttgtt atataacata tgcacacata cccagaattt tgcacatatg ttcagagatt     240
cctagacctg cagacctgcc tctgtgtgtc ccaatttaag aacctctgtt ctttcttcat     300
gactggattt gcccaatttt gtgttatttt gggacttaat ttgtccctct ttgggacatt     360
tccttattta ttgccctctt cagagagtag atgtagaaaa taaagagagg aaacctagat     420
tacttaattt ttattttaac attttctata gatagcatac cacgccaagt gtgctctgtc     480
ttgatcccct tctttctagc atctgccaga cattgtagag tttcgcaagc agttgtaggt     540
ttgagctgca gccagtcatt tcttttattc tttaaaagta catagatttg tctttttagg     600
gctttactga aagtaaaata tcctgacatt taaactgaca gatgtaggag gtaaaaaata     660
gagttctgaa acatttgaat ttatgtgaca gctgaagtca cgagatgagg gatgtatgtc     720
ccccagggag gatgcagaaa gaagaaaagg gtactggaaa cagcatgtca gtggtgccag     780
ctgagggctg gaggcagcca ggagagttgg gagcctgggt gctgggtgga gagaggttaa     840
cagggaagac atgggaagta ttgtgaaggc tggtgtgagc aggggactac tccagccctg     900
ttggaacata gagccatttg gcagattgac aatgcagtga cagctgtata taataaatgt     960
gttgaaagga ggaaggtgag gattttcttg gtgggagttt atgctgttat ttaacatatt    1020
ttgcttccaa aggggttaag atgttttacc taaatggagg tttctaggtc agtgctatac    1080
aatatttcta atctgtgttt tatagtgtga gctacatatg taattttaaa attttcaagt    1140
agccacataa taaaggaaac aggtgaaatt taatgacata tttcctttaa tacggtatat    1200
ccaaaatatt attatgtcaa cctataatca gtataaaaac ctgttactga aatattttat    1260
agggcccatc tcagttcaga ctagccacat ttaagtgctt catagccaca tgtggctcat    1320
ggccatccat atttggacaa tgtactttag actattgcat ctgtatactc ttgtgccgtc    1380
agctgggggg tggggtgtgt gtgcgtgtat accaaggcag tgagcatctg agctttgaac    1440
ctcaaagacc aaaatgccct gcccattttc ctgcttatca gctgaggaat ctttacccac    1500
attgacacat gggcttgttc tgacccaagt gcatgcaggc ttccagagca gattcagagg    1560
cctaacttag tcctttagct ttcctcccag cacagaactc ccaaggttat ctgcaagtag    1620
gccttgccta gagagactga gttttcaagt tgtcagtttt cccaaattgt cctcaagcat    1680
cttcctctgg aatcacctta ctgtttagta aacattcaga ggacttgcta cacatctggg    1740
cagtctgcat tgtaattcat atgtgtttac acatttgtgt cttcatctgc taaagcacct    1800
ttgaaccata ttgtaattca taatatctga gcaattatt atgaattgta gtaattcata    1860
atattgaagc gattcataat atctgaagca atcccagat acgggttagg catggccctg    1920
ctctgagcag gatggcaaaa gtggcagtcc gtgacgcagc ccttgttacc ccaggctatt    1980
actaaatggt ggtggtggtt ttatcttaat taaaatgaca tcaccaacaa tgggcccttt    2040
cctgtctgcc aggaaaagtt ttctgtagtg acgcacgtgt tgtgtgtgta tgtgtgcgtt    2100
tgaggctata ttactcattg ctacggcagt tcaaaatgac ttggaaaaaa acaatgaacg    2160
ctggtcattg atatgtatac tgacatgttt aagggaagtt actgtggtct gtaacttatg    2220
aaatacataa aaaatatgat gggtggagtg acggacacat ggacagatat gaagcaagca    2280
ctgtaaaata ttagtggtag ttttgtatgc ccatactcac ggcaccatta ttcacagtag    2340
ctaagagatg gaagcaatat gtgcccatca gtgggtgaat gatcaacaaa atgtggtata    2400
```

```
ttcatacagt ggaatattat tcagcctcta aaaggaagat acgctgacat gtgctgcaac   2460·
atggatgaat cttgaggaca tgatgctaag tgaagtaagc cagtcactgg aagacaaata   2520
ctctatgctt ccatttatgt gaagtatcta gagcagtcaa atgcatagaa acaagtagaa   2580
tggtagttgc caaggactgg gggaggagga aatgaggagt tgtttaatgg gtatagtgtt   2640
tcagttttgc aagataaaaa gtcctgtgga ttggttgcac agttaagtta tgtgaatgct   2700
gtatgccaac tcaactgtac actctaaaat ggttaagatg gtaaatctta tctttatttt   2760
accacagttt tttttaaagc atggtaaaca ccatttccca ggatgtaaat cggtactaaa   2820
aaaaaagtgc tccaaagtaa gatatatttg ggaaacacag ggataactaa ggttagatag   2880
gtgttcttta ttgcaggaat tctaagagca tttaacaaat taatttacac tgggaatttt   2940
cagtgtggag ggtctggctc atagcatttc acaaacatta tacttcagag tcccaaagcc   3000
tttaaataaa atgttaatgg tagaaactcc ttaaggggtg ttcactgtac aattctttca   3060
acttttctgc atgctgggag ttttttttggt aacaacgtgt tggggaaaat ggccttggaa   3120
tatttcattc aaattggagc caagctaaca caaagctgtt gctgctagtg ggaacagccc   3180
tgatgtccat gtaacaagct gccctcccca actccctcct tcctgtttct ccctcctcgg   3240
cacccacttc taggattaac aggcagggag acgggagagc ccagctctgg gtacagttgg   3300
gccacagcag aaggagggcc agggtagagg tttgggcctt ggctctgatg cttgaacata   3360
aacacaccta gtcagaagta catcagtaca aagtgggccc tacaaaatta tagggtcaga   3420
aaacaggtaa gtggttacca ggggctggga atggggagag gagtgactac agagggacct   3480
agattcttca acaaatacat tacaagagga aaagggaagg gaagggaagc ctggagattg   3540
aaagatactt gagacgtgtg aatccagtgc aatgtgtgaa ccttgtttgc ctcttgatct   3600
gaactagcca atcaatcttg taaaaatgtg cttaagggac aaagcaaatt tgaactctgg   3660
ctggatattt gatgatatta aggaaacaac atttaaacat atgacagtgg ggctatggtt   3720
atgattggtt ttgtttttttt tttctctaga gactgggttt tgcagtgtta cctaagctgg   3780
tcttgaactc ctgggctcaa gcagttctcc cacctcagcc ttggtttaag aaaaaaaaaa   3840
aaaa                                                                 3844


<210> 9242
<211> 3854
<212> DNA
<213> Homo sapiens

<400> 9242
ggccaggcgg gtctcaaact cctcgtctca ggtgatctgc ttgcctcggc ctcccaaagt     60
gctgggatta caggcgtgag ccactgcgcc cagcctgagt ttcattttttt aagtcacata    120
gcagtagtcc ttatttcagt gctagaccct ttgaaatgcg atgaaagcta tatggaccct    180
tcgctttgtt atataacata tgcacacata cccagaattt tgcacatatg ttcagagatt    240
cctagacctg cagacctgcc tctgtgtgtc ccaatttaag aacctctgtt ctttcttcat    300
gactggattt gcccaatttt gtgttatttt gggacttaat ttgtccctct ttgggacatt    360
tccttatttta ttgccctctt cagagagtag atgtagaaaa taaagagagg aaacctagat    420
tacttaattt tatttttaaca ttttctatag atagcatacc acgccaagtg tgctctgtct    480
tgatcccctt cttttctagca tctgccagac attgtagagt ttcgcaagca gttgtaggtt    540
tgagctgcag ccagtcattt ctttttattct ttaaaagtac atagatttgt cttttttaggg    600
ctttactgaa agtaaaatat cctgacattt aaactgacag atgtaggagg taaaaaatag    660
agttctgaaa catttgaatt tatgtgacag ctgaagtcac gagatgaggg atatatgtcc    720
cccagggagg atgcagaaag aagaaaaggg tactggaaac agcatgtcag tggtgccagc    780
tgagggctgg aggcagccag gagagttggg agcctgggtg ctgggtggag agaggttaac    840
agggaagaca tgggaagtat tgtgaaggct ggtgtgagca ggcgactact ccagccctgt    900
tggaacatag agccatttgg cagattgaca atgcagtgac agctgtatat aataaatgtg    960
ttgaaaggag gaaggtgagg attttcttgg tgggagttta tgctgttatt taacatattt   1020
tgcttccaaa ggggttaaga tgttttacct aaatggaggt ttctaggtca gtgctataca   1080
atatttctaa tctgtgtttt atagtgtgag ctacatatgt aattttaaaa ttttcaagta   1140
gccacataat aaaggaaaca ggtgaaattt aatgacatat ttcctttaat acggtatatc   1200
caaaatatta ttatgtcaac ctataatcag tataaaaacc tgttactgaa atattttata   1260
gggcccatct cagttcagac tagccacatt taagtgcttc atagccacat gtggctcatg   1320
gccatccata tttggacaat gtactttaga ctattgcatc tgtatactct tgtgccgtca   1380
gctggggggt ggggtgtgtg tgcgtgtata ccaaggcagt gagcatctga gctttgaacc   1440
tcaaagacca aaatgccctg cccatttttcc tgcttatcag ctgaggaatc tttacccaca   1500
ttgacacatg ggcttgttct gacccaagtg catgcaggct tccagagcag attcagaggc   1560
ctaacttagt cctttagctt tcctcccagc acagaactcc caaggttatc tgcaagtagg   1620
ccttgcctag agagactgag ttttcaagtt gtcagttttc ccaaattgtc ctcaagcatc   1680
```

```
ttcctctgga atcacctta c tgtttagtaa acattcagag gacttgctac acatctgggc   1740
agtctgcatt gtaattcata tgtgtttaca catttgtgtc ttcatctgct aaagcacctt   1800
tgaaccatat tgtaattcat aatatctgaa gcaattatta tgaattgtag taattcataa   1860
tattgaagcg attcataata tctgaagcaa tccccagata cgggttaggc atggccctgc   1920
tctgagcagg atggcaaaag tggcagtccg tgacgcagcc cttgttaccc caggctatta   1980
ctaaatggtg gtggtggttt tatcttaatt aaaatgacat caccaacaat gggccctttc   2040
ctgtctgcca ggaaaagttt tctgtagtga cgcacgtgtt gtgtgtgtat gtgtgcgttt   2100
gaggctatat tactcattgc tacggcagtt caaaatgact tggaaaaaaa caatgaacgc   2160
tggtcattga tatgtatact gacatgtttg agggaagtta ctgtggtctg taacttatga   2220
aatacataaa aaatatgatg ggtggagtga cggacacatg gacagatatg aagcaagcac   2280
tgtaaaatat tagtggtagt ttttgtatgc ccatactcac ggcaccatta ttcacagtag   2340
ctaagagatg gaagcaatat gtgcccatca gtgggtgaat gatcaacaaa atgtggtata   2400
ttcatacagt ggaatattat tcagcctcta aaaggaagat acgctgacat gtgctgcaac   2460
atggatgaat cttgaggaca tgatgctaag tgaagtaagc cagtcactgg aagacaaata   2520
ctctatgctt ccatttatgt gaagtatcta gagcagtcaa atgcatagaa acaagtagaa   2580
tggtagttgc caaggactgg gggaggagga aatgaggagt tgtttaatgg gtatagtgtt   2640
tcagttttgc aagataaaaa gtcctgtgga ttggttgcac agttaagtta tgtgaatgct   2700
gtatgccaac tcaactgtac actctaaaat ggttaagatg gtaaatctta tctttatttt   2760
accacagttt tttttaaagc atggtaaaca ccatttccca ggatgtaaat cggtactaaa   2820
aaaaaagtgc tccaaagtaa gatatatttg ggaaacacag ggataactaa ggttagatag   2880
gtgttctta ttgcaggaat tctaagagca tttaacaaat taatttacac tgggaatttt   2940
cagtgtggag ggtctggctc atagcatttc acaaacatta tacttcagag tcccaaagcc   3000
tttaaataaa atgttaatgg tagaaactcc ttaaggggtg ttcactgtac aattctttca   3060
acttttctgc atgctgggag ttttttttggt aacaacgtgt tggggaaaat ggccttggaa   3120
tatttcattc aaattggagc caagctaaca caaagctgtt gctgctagtg ggaacagccc   3180
tgatgtccat gtaacaagct gccctcccca actccctcct tcctgtttct ccctcctcgg   3240
cacccacttc taggattaac aggcagggag acgggagagc ccagctctgg gtacagttgg   3300
gccacagcag aaggagggcc agggtagagg tttgggcctt ggctctgatg cttgaacata   3360
aacacaccta gtcagaagta catcagtaca aagtgggccc tacaaaatta tagggtcaga   3420
aaacaggtaa gtggttacca ggggctggga atggggagag gagtgactac agagggacct   3480
agattcttca acaaatacat tacaagagga aaaggaaggg gaagggaagc ctggagattg   3540
aaagatactt gagacgtgtg aatccagtgc aatgtatgaa ccttgtttgc ctcttgatct   3600
gaactagcca atcaatcttg taaaaatgtg cttaagggac aaagcaaatt tgaactctgg   3660
ctggatattt gatgatatta aggaaacaac atttaaacat atgacagtgg ggctatggtt   3720
atgattggtt ttgttttttt tttctctaga gactgggttt tgcagtgtta cctaagctgg   3780
tcttgaactc ctgggctcaa gcagttctcc cacctcagcc ctggtttttag aaaaaaaaaa   3840
aaaaagttct cttg                                                      3854


<210> 9243
<211> 4787
<212> DNA
<213> Homo sapiens

<400> 9243
gaatgtaatg atgcatttt t taaaatacca gagcaaatac tttgttttat ctttgccgat    60
gaaactgtag tacatggcta gaaaccttgc aaagagaagg ctttacagtg tgtgatctgt   120
ctgtattagg tggttgtctg gggtgagtgt gactccactg atgactgtat tgagcacaac   180
attggcccct gctcctcagt cctggacgtg ggtggggctg tgacagctgt cagcgtctgc   240
ccagtgctcc acccttctca acggtcagtc tctgtgtggg gcttagtttt aagaggacca   300
cttggtttct taatatgtag ccctcatgtc atttcatttg tgaattctcc tagcctctga   360
gttactgtct ttttttttctt ttttttttt tgttttgaga tggagtctca ctctgtcacc   420
caggctggaa tgcagtggcg tgatctctgc tcactgcaac ctctgccttc tgagtttaag   480
cgattctcct gcctcagcct cccaagtagg tgggattaca ggcatgcgcc gtcacgcctg   540
gctccttttt ttatattttt aatagagatg gggtttcacc atgttggtca ggcaggtctt   600
aatctcctga cctcaagtga tccatctgcc tcgtcctccc aaagtgctgg gattacaggc   660
gtatgccacc gtgcctggcc tgagttactg tcttttgcaa aatgcttatg tttctcataa   720
taatttttaa attgatagaa cctaatgatt cagaatgtaa aatacaggtt aggaatgggg   780
ctcaaagatt cttacttcac caaatctagg actataatac tttctctgta acaagcatct   840
tcagtggaac aagggtccct acagccagct ggggaaacac tggctcgtgg gccttgccag   900
cagaggacac agataaatct gtgtgcagcc cctgtaaaga ggaggctcct tgaggacaca   960
```

```
ggagagcagt gcagcatgtc ctgggctgat gcctgcagag tcttttgtaa ggcagggaca    1020
gttgggacac tgtgaagaac tactttagag caatgacgaa gataacaatt tcatgctaag    1080
ttaatcactg ttgtcccccct cccttaaaaa cagatacgtg gttgcagtag gattggagtg    1140
tggaaagatt tgcttatata cctggaaaaa gactgatcaa gttccagaaa taaatgactg    1200
gacccactgt gtagaaacaa gtcaaaggta tttctttcct atttttgttt ccatcagatt    1260
aactagaaat tgtggggtct ttcatggcaa attttatgcc acattttcat ggagagggac    1320
atatatctgt attcgtcgtg tctaccactt tgttttgtgg taatctgaaa ttgatacatg    1380
tggtaatctg aaattgatat attgcacttg attttaaaa gtttgcttga ccaaattgct    1440
tgcatgcata atattatttt tataaacaac catttgagat gaaagtgatt tccataatgg    1500
tgtgttgtag aatttgacta cagtagattc ttaatttgat tcaaaatgtt tgtgattttt    1560
aaaaatattc tggattgcac tttggtagtc gtatccttat gattgagccc tttacctcaa    1620
aagatcctat agtggagctt tcaggcatag caaggctcat gccctgggcc tcatgcattt    1680
gccacctgag ctggcataga gcacctgctg tttacaacct cctccccatc ccacccacct    1740
agacagtagg gatcactttt aatctaccct tttacaggtt ttattctttt tgtgtgtgtg    1800
tgagacaggg tctcactctg tcacctaggc tagagtgcag tggcaagatc ccagctcact    1860
gcaacctccg cctcccaggc tcaatcagtc ttcctacctc agcctcccaa atagctggga    1920
ctacagacac gcaccaccat gccaggctaa ttttttttgt attttagta gagacggggt    1980
ttcattgtgt tggccaggct ggtctccata tcctgggctc aagcaatcct cctgtcttgg    2040
cctcccaaag tgctggagtt acaggcatgg gccactgtgc ctggcccaca ttttattctt    2100
taaaaatgcc taaatgtggc tgggtgtgtt ggctcatggt ctctaccagt gagacccctg    2160
gtctctacca aaaataaaag aaattagcca ggtgtgatgg tgcatgactg tgggtcccag    2220
ctacttggga gggtgaagtg ggaggatcac ttgagcccag gaggttgagg ctgcagcaag    2280
ccataatcac accattgcac tccagcctgg gtgagtgaga gcctgtcccc cccaaaaaag    2340
tataaacatt cagaaagcta ctaatatcat tctgtgttat attttcttag gcttttcaa    2400
ccttcgtata tctgtactgt tgaaaataca atttcaaata gcaatttcaa atgacaatat    2460
gatgagggtg agtgcttaat ggagagagat ttgtgagcaa tgtcttaaga tatttcatcc    2520
agcagatctt gtctccatgt cagccaagca tgttagtgct cattataatt atatttatta    2580
aaatgagata ttgccatgcc cccatggctt ctctcctgcc tctctgggct gggtttagca    2640
gttgaactag tttgtgctgt tggcttgctg aagagggaag aagtctgttg aaattccatg    2700
cttcaggcat ttgaaatttt ctctcttcct gggcacccctt tccttccact ttgcctgccc    2760
acagtgctcc cttcacctct aacctggtgt gaagacctct tcaatggcca ccatgtggga    2820
cactggtggg aagcccctta gaaagtgcag gaagggaaca cgtatagaat ttgagttttt    2880
tgtctgaagg ggttgttttt ttctttggtc attatggtga cttaggattt gcaagatgga    2940
actaatgcgt gacttaacat atattatttg gattgctaat atttcagtta ccacgttcca    3000
agtacctttc aaatgaaagc ttttgctagt aataagattt acagaggtaa tataagcaaa    3060
cactacccctt taggttggtt tgccaaactc cctatcttct taaatatgac atgttaatat    3120
tctggattta aaggacatta ccaaaaaaag aaacccacta tctcaaagct tacatagcca    3180
aacaagtatg ttcctcaaag tagctcccctt ggaaagagtt ataccacata tgtttatttc    3240
cgtgatttca ctacttcaaa tccttctttt aatgaaatga gataactcta atccataata    3300
attgagattc cagtgatgtt gctatcactt aaaatgttct tggaacttct ctgtaggaat    3360
tgtgttcaga actagcttac taatgatgca agaaacaaa ttataatgcc ttttataata    3420
ttacctgttt caatcatttc ctcttttaa agcttgccat tcatatctat taagcttgcc    3480
atttatattt attataaagc ttacttccag gtgctttcaa cagtcagatt catcctcaaa    3540
ggaacatgag ctatcactga gagtactcaa atcatagtct gcataatatg gaagcatttt    3600
ctctagaata atttcagaaa acagttgagg cacagcagtc agagtgacta tttgtaaggg    3660
cacgcagtca tcttgttgca taggttcagg aggactgatt tttaaaatgg gtttcgtgac    3720
ttcattcttc ccttttaatc atgagaatgc atctggtgac agggactgtc agcaaatgaa    3780
agtgtaatgt gtgtgctctg gtattgtttt cagtgtttat tgccctaaaa cctacttagg    3840
tttttcactt tattcctttt tggtttggga agctaatttg caggttaaat ttatagaaga    3900
tgttgtattt tcatagagat ttattcctaa catacgttgg taacactctg ggtctgcctt    3960
tttaaagggc tgggggaggta gggggtaggg agcattaata cgatggtctt gcccaaggtc    4020
acgcagttag aggtcacact ggagaccaag actctttcat tgtgcagtac attaaatctg    4080
tcattgtctt tctttaccca gtagtaaaaa tgcaattcca tccacctcac agggatgtca    4140
aaatagtaaa ataatctaga atatattgta aagttaaaat tgttataaat ttagtaatgt    4200
tatctaaaag actaacttga atatccattt catgaaattc cattgatcat taaaacaaca    4260
ttcatttaaa aaaatttttat ttttgtttt ttttaaaca acatttgaca gagattcatt    4320
gtctgtgtct tgctcatttt ggtgatgtta ttgccagtga gtaagattaa aatttagtct    4380
tgcagtttta agtaaatata gtaaaatatt ttccaggtta aaataaaatg gctaaaatgt    4440
taatgatgcg attttaaaac ctgtacattt caattttcag gtttttaactt ccattcatgt    4500
ttacaccatt aattggaaaa acatttcatg atttctctat ctttgtttta gccaaagtca    4560
tacactggct atcagaaaat tatgctggaa gaattgcagt ggaaaaactg aacagaagga    4620
```

6848

```
agcagaaggt gctgagtggt tacactttgc aagctgtggt gaagatcaca ctgtgaagat    4680
acacagagtc aataaatgtg cactgtaatg gacttaataa ctacatgctt gcagtcactg    4740
gtatcttaaa atattatcat gtaaacaggt catctttacc ttcataa                  4787


<210> 9244
<211> 98
<212> DNA
<213> Homo sapiens


<400> 9244
tgtaatccca gcaatttggg aggctgaggc aggtggatca cttgaggtca ggagttcgag      60
accagcctgg ccaacatggt gaaaccccat ctctacta                              98


<210> 9245
<211> 98
<212> DNA
<213> Homo sapiens


<400> 9245
tgtaatccca gcaatttggg aggctgaggc aggtggatca cttgaggtca ggagttcgag      60
accagcctgg ccaacatggt gaaaccccat ctctacta                              98


<210> 9246
<211> 4786
<212> DNA
<213> Homo sapiens


<400> 9246
gaatgtaatg atgcattttt taaaatacca gagcaaatac tttgttttat ctttgccgat      60
gaaactgtag tacatggcta gaaaccttgc aaagagaagg ctttacagtg tgtgatctgt     120
ctgtattagg tggttgtctg gggtgagtgt gactccactg atgactgtat tgagcacaac     180
attggcccct gctcctcagt cctggacgtg ggtggggctg tgacagctgt cagcgtctgc     240
ccagtgctcc acccttctca acggtcagtc tctgtgtggg gcttagtttt aagaggacca     300
cttggtttct taatatgtag ccctcatgtc atttcatttg tgaattctcc tagcctctga     360
gttactgtct ttttttcttt tttttttttt gttttgagat ggagtctcac tctgtcaccc     420
aggctggaat gcagtggcgt gatctctgct cactgcaacc tctgccttct gagtttaagc     480
gattctcctg cctcagcctc ccaagtaggt gggattacag gcatgcgccg tcacgcctgg     540
ctcctttttt tatattttta atagagatgg ggtttcacca tgttggtcag gcaggtctta     600
atctcctgac ctcaagtgat ccatctgcct cgtcctccca agtgctggg attacaggcg      660
tatgccaccg tgcctggcct gagttactgt cttttgcaaa atgcttatgt ttctcataat     720
aatttttaaa ttgatagaac ctaatgattc agaatgtaaa atacaggtta ggaatggggc     780
tcaaagattc ttacttcacc aaatctagga ctataatact ttctctgtaa caagcatctt     840
cagtggaaca agggtcccta cagccagctg gggaaacact ggctcgtggg ccttgccagc     900
agaggacaca gataaatctg tgtgcagccc ctgtaaagag gaggctcctt gaggacacag     960
gagagcagtg cagcatgtcc tgggctgatg cctgcagagt cttttgtaag gcagggacag    1020
ttgggacact gtgaagaact actttagagc aatgacgaag ataacaattt catgctaagt    1080
taatcactgt tgtccccctc ccttaaaaac agatacgtgg ttgcagtagg attggagtgt    1140
ggaaagattt gcttatatac ctggaaaaag actgatcaag ttccagaaat aaatgactgg    1200
acccactgtg tagaaacaag tcaaaggtat ttctttccta tttttgtttc catcagatta    1260
actagaaatt gtggggtctt tcatggcaaa ttttatgcca cattttcatg gagagggaca    1320
tatatctgta ttcgtcgtgt ctaccacttt gttttgtggt aatctgaaat tgatacatgt    1380
ggtaatctga aattgatata ttgcacttga ttttttaaaag tttgcttgac caaattgctt    1440
gcatgcataa tattatttt ataaacaacc atttgagatg aaagtgattt ccataatggt    1500
gtgttgtaga atttgactac agtagattct taatttgatt caaaatgttt gtgattttta    1560
aaaatattct ggattgcact ttggtagtcg tatccttatg attgagccct ttacctcaaa    1620
agatcctata gtggagcttt caggcatagc aaggctcatg ccctgggcct catgcatttg    1680
ccacctgagc tggcatagag cacctgctgt ttacaacctc ctccccatcc cacccaccta    1740
gacagtaggg atcacttta atctacccctt ttacaggttt tattctttttt gtgtgtgtgt    1800
```

```
gagacagggt ctcactctgt cacctaggct agagtgcagt ggcaagatcc cagctcactg     1860
caacctccgc ctcccaggct caatcagtct tcctacctca gcctcccaaa tagctgggac     1920
tacagacacg caccaccatg ccaggctaat ttttttgta ttttttagtag agacggggtt     1980
tcattgtgtt ggccaggctg gtctccatat cctgggctca agcaatcctc ctgtcttggc     2040
ctcccaaagt gctggagtta caggcatggg ccactgtgcc tggcccacat tttattcttt     2100
aaaaatgcct aaatgtggct gggtgtgttg gctcatggtc tctaccagtg agacccctgg     2160
tctctaccaa aaataaaaga aattagccag gtgtgatggt gcatgactgt gggtcccagc     2220
tacttgggag ggtgaagtgg gaggatcact tgagcccagg aggttgaggc tgcagcaagc     2280
cataatcaca ccattgcact ccagcctggg tgagtgagag cctgtccccc ccaaaaaagt     2340
ataaacattc agaaagctac taatatcatt ctgtgttata ttttcttagg cttttttcaac     2400
cttcgtatat ctgtactgtt gaaaatacaa tttcaaatag caatttcaaa tgacaatatg     2460
atgagggtga gtgcttaatg gagagagatt tgtgagcaat gtcttaagat atttcatcca     2520
gcagatcttg tctccatgtc agccaagcat gttagtgctc attataatta tatttattaa     2580
aatgagatat tgccatgccc ccatggcttc tctcctgcct ctctgggctg ggtttagcag     2640
ttgaactagt ttgtgctgtt ggcttgctga agagggaaga agtctgttga aattccatgc     2700
ttcaggcatt tgaaattttc tctcttcctg ggcacccttt ccttccactt tgcctgccca     2760
cagtgctccc ttcacctcta acctggtgtg aagacctctt caatggccac catgtgggac     2820
actggtggga agcccttag aaagtgcagg aagggaacac gtatagaatt tgagtttttt     2880
gtctgaaggg gttgttttt tctttggtca ttatggtgac ttaggatttg caagatggaa     2940
ctaatgcgtg acttaacata tattatttgg attgctaata tttcagttac cacgttccaa     3000
gtacctttca aatgaaagct tttgctagta ataagattta cagaggtaat ataagcaaac     3060
actacccttt aggttggttt gccaaactcc ctatcttctt aaatatgaca tgttaatatt     3120
ctggatttaa aggacattac caaaaaaaga aacccactat ctcaaagctt acatagccaa     3180
acaagtatgt tcctcaaagt agctcccttg gaaagagtta taccacatat gtttatttcc     3240
gtgatttcac tacttcaaat ccttctttta atgaaatgag ataactctaa tccataataa     3300
ttgagattcc agtgatgttg ctatcactta aaatgttctt ggaacttctc tgtaggaatt     3360
gtgttcagaa ctagcttact aatgatgcaa gaaaacaaat tataatgcct tttataatat     3420
tacctgtttc aatcatttcc tcttttaaa gcttgccatt catatctatt aagcttgcca     3480
tttatattta ttataaagct tacttccagg tgctttcaac agtcagattc atcctcaaag     3540
gaacatgagc tatcactgag agtactcaaa tcatagtctg cataatatgg aagcattttc     3600
tctagaataa tttcagaaaa cagttgaggc acagcagtca gagtgactat ttgtaagggc     3660
acgcagtcat cttgttgcat aggttcagga ggactgattt ttaaaatggg tttcgtgact     3720
tcattcttcc cttttaatca tgagaatgca tctggtgaca gggactgtca gcaaatgaaa     3780
gtgtaatgtg tgtgctctgg tattgttttc agtgtttatt gccctaaaac ctacttaggt     3840
ttttcacttt attccttttt ggtttgggaa gctaatttgc aggttaaatt tatagaagat     3900
gttgtatttt catagagatt tattcctaac atacgttggt aacactctgg gtctgccttt     3960
ttaaagggct ggggaggtag ggggtaggga gcattaatac gatggtcttg cccaaggtca     4020
cgcagttaga ggtcacactg gagaccaaga ctctttcatt gtgcagtaca ttaaatctgt     4080
cattgtcttt ctttacccag tagtaaaaat gcaattccat ccacctcaca gggatgtcaa     4140
aatagtaaaa taatctagaa tatattgtaa agttaaaatt gttataaatt tagtaatgtt     4200
atctaaaaga ctaacttgaa tatccatttc atgaaattcc attgatcatt aaaacaacat     4260
tcatttaaaa aaattttatt ttttgttttt tttaaacaa catttgacag agattcattg     4320
tctgtgtctt gctcattttg gtgatgttat tgccagtgag taagattaaa atttagtctt     4380
gcagttttaa gtaaatatag taaaatattt tccaggttaa aataaaatgg ctaaaatgtt     4440
aatgatgcga ttttaaaacc tgtacatttc aatttcagg ttttaacttc cattcatgtt     4500
tacaccatta attggaaaaa catttcatga tttctctatc tttgttttag ccaaagtcat     4560
acactggcta tcagaaaatt atgctggaag aattgcagtg gaaaaactga acagaaggaa     4620
gcagaaggtg ctgagtggtt acactttgca agctgtggtg aagatcacac tgtgaagata     4680
cacagagtca ataaatgtgc actgtaatgg acttaataac tacatgcttg cagtcactgg     4740
tatcttaaaa tattatcatg taaacaggtc atctttacct tcataa                   4786


<210> 9247
<211> 4788
<212> DNA
<213> Homo sapiens

<400> 9247
gaatgtaatg atgcattttt taaaatacca gagcaaatac tttgttttat ctttgccgat      60
gaaactgtag tacatggcta gaaaccttgc aaagagaagg ctttacagtg tgtgatctgt     120
ctgtattagg tggttgtctg gggtgagtgc gactccactg atgactgtat tgagcacaac     180
```

```
attggcccct gctcctcagt cctggacgtg ggtggggctg tgacagctgt cagcgtctgc    240
ccagtgctcc acccttctca acggtcagtc tctgtgtggg gcttagtttt aagaggacca    300
cttggtttct taatatgtag ccctcatgtc atttcatttg tgaattctcc tagcctctga    360
gttactgtct ttttttttctt tttttttttt tgttttgaga tggagtctca ctctgtcgcc    420
caggctggaa tgcagtggcg tgatctctgc tcactgcaac ctctgccttc tgagtttaag    480
cgattctcct gcctcagcct cccaagtagg tgggattaca ggcatgcgcc gtcacgcctg    540
gctccttttt ttatattttt aatagagatg gggtttcacc atgttggtca ggcaggtctt    600
aatctcctga cctcaagtga tccatctgcc tcgtcctccc aaagtgctgg gattacaggc    660
gtatgccacc gtgcctggcc tgagttactg tcttttgcaa aatgcttatg tttctcataa    720
taattttttaa attgatagaa cctaatgatt cagaatgtaa aatacaggtt aggaatgggg    780
ctcaaagatt cttacttcac caaatctagg actataatac tttctctgta acaagcatct    840
tcagtggaac aagggtccct acagccagct ggggaaacac tggctcatgg gccttgccag    900
cagaggacac agataaatct gtgtgcagcc cctgtaaaga ggaggctcct tgaggacaca    960
ggagagcagt gcagcatgtc ctgggctgat gcctgcagag tctttgtaa ggcagggaca    1020
gttgggacac tgtgaagaac tactttagag caatgacgaa gataacaatt tcatgctaag    1080
ttaatcactg ttgtcccccct cccttaaaaa cagatacgtg gttgcagtag gattggagtg    1140
tggaaagatt tgcttatata cctggaaaaa gactgatcaa gttccagaaa taaatgactg    1200
gacccactgt gtagaaacaa gtcaaaggta tttctttcct attttttgttt ccatcagatt    1260
aactagaaat tgtggggtct ttcatggcaa attttatgcc acattttcat ggagagggac    1320
atatatctgt attcgtcgtg tctaccactt tgttttgtgg taatctgaaa ttgatacatg    1380
tggtaatctg aaattgatat attgcacttg attttttaaaa gtttgcttga ccaaattgct    1440
tgcatgcata atattatttt tataaacaac catttgagat gaaagtgatt tccataatgg    1500
tgtgttgtag aatttgacta cagtagattc ttaatttgat tcaaaatgtt tgtgattttt    1560
aaaaatattc tggattgcac tttggtagtc gtatccttat gattgagccc tttacctcaa    1620
aagatcctat agtggagctt tcaggcatag caaggctcat gccctgggcc tcatgcattt    1680
gccacctgag ctggcataga gcacctgctg tttacaacct cctcccatc ccacccacct    1740
agacagtagg gatcactttt aatctaccct tttacaggtt ttattctttt tgtgtgtgtg    1800
tgagacaggg tctcactctg tcacctaggc tagagtgcag tggcaagatc ccagctcact    1860
gcaacctccg cctcccaggc tcaatcagtc ttcctacctc agcctcccaa atagctggga    1920
ctacagacac gcaccaccat gccaggctaa ttttttttgt attttttagta gagacggggt    1980
ttcattgtgt tggccaggct ggtctccata tcctgggctc aagcaatcct cctgtcttgg    2040
cctcccaaag tgctggagtt acaggcatgg gccactgtgc ctggcccaca tttattctt    2100
taaaaatgcc taaatgtggc tgggtgtgtt ggctcatggt ctctaccagt gagacccctg    2160
gtctctacca aaaataaaag aaattagcca ggtgtgatgg tgcatgactg tgggtcccag    2220
ctacttggga gggtgaagtg ggaggatcac ttgagcccag gaggttgagg ctgcagcaag    2280
ccataatcac accattgcac tccagcctgg gtgagtgaga gcctgtcccc cccaaaaaag    2340
tataaacgtt cagaaagcta ctaatatcat tctgtgttat attttcttag gcttttttcaa    2400
ccttcgtata tctgtactgt tgaaaataca atttcaaata gcaatttcaa atgacaatat    2460
gatgagggtg agtgcttaat ggagagagat ttgtgagcaa tgtcttaaga tatttcatcc    2520
agcagatctt gtctccatgt cagccaagca tgttagtgct cattataatt atatttatta    2580
aaatgagata ttgccatgcc cccatggctt ctctcctgcc tctctgggct gggtttagca    2640
gttgaactag tttgtgctgt tggcttgctg aagagggaag aagtctgttg aaattccatg    2700
cttcaggcat ttgaaatttt ctctcttcct gggcacccctt tccttccact ttgcctgccc    2760
acagtgctcc cttcacctct aacctggtgt gaagacctct tcaatggcca ccatgtggga    2820
cactggtggg aagcccctta gaaagtgcag gaagggaaca cgtatagaat ttgagttttt    2880
tgtctgaagg ggttgttttt ttctttggtc attatggtga cttaggattt gcaagatgga    2940
actaatgcgt gacttaacat atattatttg gattgctaat atttcagtta ccaagttcca    3000
agtaccttttc aaatgaaagc ttttgctagt aataagattt acagaggtaa tataagcaaa    3060
cactacccctt taggttggtt tgccaaactc cctatcttct taaatatgac atgttaatat    3120
tctggattta aaggacatta ccaaaaaaag aaacccacta tctcaaagct tacatagcca    3180
aacaagtatg ttcctcaaag tagctcccctt ggaaagagtt ataccacata tgtttatttc    3240
cgtgatttca ctacttcaaa tccttctttt aatgaaatga gataactcta atccataata    3300
attgagattc cagtgatgtt gctatcactt aaaatgttct tggaacttct ctgtaggaat    3360
tgtgttcaga actagcttac taatgatgca agaaaacaaa ttataatgcc tttttataata    3420
ttacctgttt caatcatttc ctcttttttaa agcttgccat ttatatctat taagcttgcc    3480
atttatattt attataaagc ttacttccag gtgctttcaa cagtcagatt catcctcaaa    3540
ggaacatgag ctatcactga gagtactcaa atcatagtct gcataatatg gaagcatttt    3600
ctctagaata atttcagaaa acagttgagg cacagcagtc agagtgacta tttgtaaggg    3660
cacgcagtca tcttgttgca taggttcagg aggactgatt tttaaaatgg gtttcgtgac    3720
ttcattcttc ccttttaatc atgagaatgc atctggtgac agggactgtc agcaaatgaa    3780
agtgtaatgt gtgtgctctg gtattgtttt cagtgtttat tgccctaaaa cctacttagg    3840
```

6851

```
tttttcactt tattcctttt tggtttggga agctaatttg caggttaaat ttatagaaga    3900
tgttgtattt tcatagagat ttattcctaa catacgttgg taacactctg ggtctgcctt    3960
tttaaagggc tggggaggta gggggtaggg agcattaata cgatggtctt gcccaaggtc    4020
acgcagttag aggtcacact ggagaccaag actctttcat tgtgcagtac attaaatctg    4080
tcattgtctt tctttaccca gtagtaaaaa tgcaattcca tccacctcac agggatgtca    4140
aaatagtaaa ataatctaga atatattgta aagttaaaat tgttataaat ttagtaatgt    4200
tatctaaaag actaacttga atatccattt catgaaattc cattgatcat taaaacaaca    4260
ttcatttaaa aaaatttat tttttgtttt ttttaaaca acatttgaca gagattcatt    4320
gtctgtgtct tgctcatttt ggtgatgtta ttgccagtga gtaagattaa aatttagtct    4380
tgcagtttta agtaaatata gtaaaatatt ttccaggtta aaataaaatg gctaaaatgt    4440
ataatgatgc gattttaaaa cctgtacatt tcaattttca gggtttaact tccattcatg    4500
tttacaccat taattgggaa aacatttcat gatttctcta tctttgtttt agccaaagtc    4560
atacactggc tatcagaaaa ttatgctgga agaattgcag tgggaaaact gaacagaagg    4620
aagcagaagg tgctgagtgg ttacactttg caagctgtgg tgaagatcac actgtgaaga    4680
tacacagagt caataaatgt gcactgtaat ggacttaata actacatgct tgcagtcact    4740
ggtatcttaa aatattatca tgtaaacagg tcatctttac cttcataa                 4788


<210> 9248
<211> 1502
<212> DNA
<213> Homo sapiens

<400> 9248
catgattaca ctaatgcatt ccagccttgg cagcagatca agaccctgtc tcaaaaaaat     60
aaataaaaat aaaataattg ctgtgaaatt tctattaacg tttttgggaa aaccagaggc    120
ttctgtgtga catgtgaatc acagaggaga aatcatgaat ctttatagcc ttgtgttaac    180
atgacttcct tttgttgata gagtggttta ttagtctcaa gacctttgaa atggcacatg    240
aattgcttgg acagattatg gagacatcca cccttcttta gagatttaag taagtagaac    300
cagttagtgt gcctcttctg tttctcacct tgctcaatgc agaatgaact tggtgtatat    360
ccaccagaag cacctgctta tctactgttt gctgtcgttg caggtatctg ttgagattag    420
ctgtaacgag ttgtatgtaa ttttataact aactgaatta agaaaagcct ttgtaagatt    480
cagtatctgc ttcaggtcat tgaaatgtaa aattagaaag taagctgagg gcaggggatt    540
tttttctgtt ttattccatt tattccctca ccacctttgc catccaccac caacagtttc    600
ttttaaattt agcatccaga gtagaccttt gacaacgcaa atcagatcac ttcatttgtt    660
cattaaaaac cttcaacagg tttcacatta ttcttaggat tatatttaac atccttatac    720
agtaatctcc aagcctctcc ttgatctggt accctctttc catctctaat ctcttcttta    780
acactcctat acttacttac tcagccccag gcacattggc atatttgctg ttgcctgaac    840
atgcaaattc cttgaacttg ctgtttcctt gcctgaaact ctcttcctc agatatctgc      900
ctggccttcc tcttaacctc caagtcttgt ctcaaatatc attttttcag tgaggccttg    960
cttggccagc cctttccctc actatatcct gctccccaac aattgatttt tacttatcca   1020
tataacttt atccccctgt gtgctatata tttttacttat ttcttggttc attggctgtc   1080
tccaccaaaa tgtaagtgcc atgaggacag gaattttatt aatatcagtt tgttcatttc   1140
tataccttta gtgctttaaa cagtatttag cacacagtaa gcattcaata aatatgtatt   1200
ggactgggca cagtggctca tgcctgtaat cccagcactt tgagaggccg aggcaggtgg   1260
atcacctgag gtcaggagtt caagaccagt ctggccagca gggtgaaacc ccatttctac   1320
taaagagacc aaaatcagcc agtcatggtg gcatgtgcct gtagtcccag ctactcggta   1380
ggctgaggca ggaagatcgc tagaatccag gaggcagagg ttgcagtgag tcgagatcag   1440
gccattgcac tccagcctgg gtgacagagc aagactctgt cttcaaaaaa aaaaaaaaa    1500
ag                                                                   1502


<210> 9249
<211> 645
<212> DNA
<213> Homo sapiens

<400> 9249
aaagatagca ttcacagctt ccagggattc agtgtgaata cttttggggg ccattttttg     60
gcctgccaga agtataaaca ctatcaactc tagtatataa gaggcaaaac agtattatct    120
gcacatgacc atgctgttta agctctgtgc ctacttgctc tcctgcaaag cacagatatc    180
```

6852

```
aatagtacct atttccaaag attgttgtga ggattgatat gtaagtaccc agtagtttct      240
atgacataag tattcaataa atatcattac actgttaaac aatgcctact gaacatttcc      300
tatgtgccaa gcttcgtccc aagtacatgt catgccttag ccaatttagt cctcacaaca      360
atcctatgag tagagactgt ctcttgctga aggtcatata cctagtaagc ggtggtgaga      420
ttgaaaccca gacactctgc tccagaagtc tgtgctctta accgctccag atgtggcctt      480
tctgaatgat gctactgttg tttttaaaata attgctctag gctcggtgtg gtggctcaca      540
cctgtaatcc caagactttg ggaggctgag gcaggagaat tgcttgagcc caggagtttg      600
agaccagctt cagcaacatg gtgagaccct atctctacca aaaaa                      645


<210> 9250
<211> 10286
<212> DNA
<213> Homo sapiens

<400> 9250
cttgaagaaa atgaaatcag ccccagtctt tatgctgccc cctggttcct cacattgttt       60
gcctctcagt tttcattagg atttgtagcc agagtttttg gtaagagata cctgtaatta      120
aatggaacag tattatttat tccaaggact atacttctac ttctagccat atgatgcccc      180
tattgttcta tcatgtgtta tacagaatag caaattgcta atggaattta ataaatgtgc      240
ctggctgtgt tctgacagta acttaaaatc atacttgtct tacataaaat tgaaattaaa      300
aaggaaagag gaattgggct cctgtatttg agtcagctgt aatggagctc ttattttcat      360
ttgtgcctaa aaatcagaga gtatactcct aaaatctgga ctagggacag actgtgtata      420
attttccaga ttttttatata catgtttcta cccccattgt cttcttcatc ttgcattcaa      480
aacacagaga aatatgttct taactgtatc aatgttgttt ctaatggcat ttcttaacct      540
gactttttgt tgttaacaga ataactttac atcctgtttc attgctcatg tgactcttct      600
ttcatgccaa tgcagtgctg ggggacagtc tctaagactg gtggctcagg gaaaacacta      660
agtacagtca gtagagctca gggcaagtta ctgagtaact gccttgctct aagcacagtg      720
tttggcattg ggaataaaaa gagagtgtaa catggtttat gtccccttcg gaggcccttta      780
aatctattca caagtcttta tactagtcta agtctgttat ttaaaaagca aaaattaaaa      840
caacaacaac aacaaccaac tcttcatcag aggtttgttc taatgatgtt gtttaggacc      900
tcagtagcct tagaaagggc tcccttaatt tttatgttct gataatctat ttagtagaca      960
tgggcaaagc agtcagtatt cactcacaac tgcacttctg ttaaattgga gcttttttgtc     1020
aaattgtatt ggcgccattg taggtcattg ccagtgtttg aaaaaatgaa acagcattta     1080
gtgaagatat tagggaatat tacaaatagt aaggaaatat gttgtttgga gaaatttgtt     1140
ttgaggatat atgtgtaatg tatatatata ccagattaca acatatgata tctttcttat     1200
tgagggctgt ggtttaaaag ttaaacactg cattagtgtt actacaattt ataaaatgca     1260
gcaaaagagt aaagtgaaaa tgcgctgaat caaatgttca ccagatttct cttgtttatt     1320
gaatatacac tattgctttt ctacagtgac attttctctg gagcttgggt tcctattaat     1380
gggtattcta taaatccttt tgtttatata catttttctt cccagagaat agtgtatcaa     1440
atcaaaatga tgtttcaggg cacctctctt ttacttaccc ttggaagctt gatatcaaga     1500
gttcaagaaa caaatgtcct cagtatcagt tttttgtcat gagaatacaa atgatgctgt     1560
tggctataca atagctgttc aactctcttc tttgaattta taaaacaatg gagactggca     1620
ggaaatggaa agatgcatga gcaagaagaa ttactatgaa ataatgattc tatggttccc     1680
tcttcattag agactccctg ttgtatatta ttgattaaag aatgacatag attgagagaa     1740
actttcataa aaaagtacta agtacttgat actttattt ctttcttttt ttatttttct     1800
aagactgagt cttgctctat tgcctaggct ggagtgcagg gcacaatatc aattcactgc     1860
aacctctgcc tcctgggttc gagcgattct cctgcctcag cctcccgagt agctaagact     1920
acaggcatgt gccaccacac tcagctaatt tttgtatttt cgtagagac ggggtttcac      1980
catgttgacc aggctggtct gtaactccta gcctcaagcc atccacccac ctcagcctcc     2040
caaattgttg ggtttacaga tgtgagccaa cacgcccggc ctagtacttg atacttttca     2100
aaagtattgc atgtttgtat ttgtaggaaa gcagggctta gagttagggt agctcttata     2160
tttctctcct gattgaggtt gtatgttttt catttgtttt aattttctg ttaatgtttt     2220
tttttttta atttcctggt gtggtataga tttaattaca tagctggttc atttactttt     2280
tattatggta atgagagttt gaatagtact cattggttat gttaatttgt ttttgtattc     2340
ctgttgtgaa gaaaaatcta aatatcaatt gaataactgt ccttgaggtt tacctagtct     2400
ccattaaatt tggcattaaa aattacaagt agttcatgga cagagatata tactttgtcc     2460
tttttacccc tggctttatc tgagattctt aagaggaata ttaaaacatc tgcttatatg     2520
tttagttata ttgctttttt aaaaaaaagc tagatgcttt tgaccagttt tcttctgcaa     2580
aatacataaa acaagtaaac aaaaacctt  agcacaaata gcgtgcttt  tacaagagtg     2640
gatgcatagt tttgatcatg aaaattatat ctcttctttt agatattatt tttcttcagg     2700
```

                                    6853

```
gaactgaagt tatattcaag gttgcactca gcctactgag cagccaagag acacttataa    2760
tggaatgtga gagctttgaa aatattgttg agtttcttaa aaacacgcta cctgatatga    2820
atacctctga aatggaaaaa attattaccc aggtatgatt taaatgctaa tagtattata    2880
tagcagtttt ctctactaaa tatatattaa atgctttagc ctaaaaatgt agctttgctt    2940
gacagatatt ttcatcagat acattttatt tagaaagggg actattgtga aatttctaca    3000
ctgtgacatt ttctatctgg ctatgcacaa aaaatgctgt ttagtgctac gtaatgagtt    3060
tttcaggaat cctttcaatt taaaccaatg ctaaaactga agatagaact gacagagtca    3120
agaaggcctg agaataaaat cagatcctct tgcctttgtt atattgttaa ttattttgta    3180
aaataaacga agaggacacg tggcaggagt acaggctttg gaattagaag gtattgggtt    3240
tgcatctact tctggctttt taattggttg tttggcttgc acacatcagc ctaatcatcc    3300
aaaccctagt tgtccagaat gggacagtac tggacaagtt ccagaatggg atgatactga    3360
tctgagaggt tttatgaagc ttcagtgagg agacttggtg tatcagtctt tgtccctaca    3420
ggaaacattc tccctccgat gattcaaatg aaggaaccat ctataaaggt gtgggtaggc    3480
gtaaggcaat ccaacacagc tgtccaggtg cgaaggaact agtaacatag ggaagctgtt    3540
caaacccctg ctgcagagga gctaagtgga ggatataata gtgttactag gcccagggag    3600
agctggaacc gtggaggagg gttctgtgct ggttgttgtg gtcttgttga actaggcaga    3660
gaaggatcag ggaagaaata cccaaccctt ttctcctgcc ccttctgatc ttgtgctggc    3720
atcttctatt tgccaaagtg aaccagaagc cagccagaaa gtaagtgtgg ggaattgtct    3780
gcctgccagg gtacaataga atggatgagg gcagagaatt gatctgagaa gcaaattgag    3840
agtaatctgc acaccgtatg tgtagtcctt gactcttcat agggaccagg tgagtggtag    3900
ctatatattg ctgccgttca gatgcagtgg acaagcttaa gagcagcttg atagatttga    3960
caattatgct ttatgagcat tgataaagtt taccactttc ctgaaggcac tttttgatggc    4020
agaaagacga tagggtttag agaaagggag tttggaacct tgttctggtg cccagccatt    4080
tactagctgt gtacctatgg gcaagttaca acctctctga gtctcaacct cttcctctac    4140
aaaatgggaa taacaaaagt agattctatt atagttttgt attattttag gagcaaatat    4200
aaccaatatg ttaaagtatt ttgtaccctg taattcatac tataatatga actcttatta    4260
tattaataca tgtaaaattt tatttccatt acatggaatc taaatcacaa atatctataa    4320
atagtttgta tttgttaaaa tgctctgtaa gctgaaaagt gtagctttta tttatatatt    4380
cacttgttta taaatttttc agaaatatct ttcttgactg gaatcagata ttatgctttt    4440
agagatctga aatcagatat cacctccctt ctaaaattaa tgaggaaatt gcctggcttt    4500
atagattact attgggatta atgagtagaa tttataggca ggtaaatttg aacttgatat    4560
tggagagaat ttcctaacaa ttagagttga ttactgtgga atgaaatgct gatattaagg    4620
gagactttga tgaactttat ttatggacac tggaaaaaaa tgcaaataat gcagaaaatc    4680
acaagaaaat aaaagtaact ataaatctca acatctagag ataatctttg aaactttgta    4740
ttacatgttt ctttgcttat atatacatat aaaaatatat aaagttgtac ataaatgaaa    4800
tcatactata tatactattg tggaacctga tttataatta aaaatataaa gtattagatt    4860
ttttccagta actataaatc catattatca tttttaatgg ttgtataata atccattgta    4920
tccataccca ctaagtaagg aaaagatgat ggttatttga ggataaccag ttagtctaga    4980
aattctctta ttaaaattcg aatgtttgag tatctctatt agtaagtagt agagtaagtc    5040
aggttttttg tggtttcttt tctcttctca gtgttagtat agacaccatt gcttgaatag    5100
cagctgttgt ctctccttcc ccctaggaag tttggagtaa ctgtcctcta gcttcaaagc    5160
aaacgacctt cctatttagt ggtgacatgg gagagcagta gcagccctaa ttaaacctta    5220
cagccctgga cagtgctcac agtgtgcaat tttgaggatt ctctgtgtgg tacaatatgt    5280
aaatgactct taagaggctt acagggaata gcaaatggat gcaaaatttt attaagatct    5340
ttctgctcca ttggcaaata aattagaaat gcttttggtt gctttattac agtaataccc    5400
tatgcaattt tgcttactaa tcagcagaga ttatctctaa cataataatt actcaataac    5460
taatgttgtt tatctagtat actacatttt gggagacagt tactagatta tgaatatctt    5520
agctgccaaa tacacttgga cattaattta ttctagggac ttagcttcat gagaatgttt    5580
caattgcata gaaataatct atctgttctg tttttaaaga aaatcttctt tcacagaaag    5640
agctatctgt ttttatgttg acagtgtaaa ctatatctaa tttattcttg tattgacagt    5700
tacacttttt ttttgctttt ttatgcttta atgttcttca ttaataagta tttggaaata    5760
tacatgaaat ataccaagat aaacaggctg tatcttgtta tacataccaa aggctagcct    5820
aacccatgat actttcatgg caggtttttg agatggatat ttctaagcag ttgcatgcct    5880
atgaggtgga atatcatgtg ctacaggatg agcttcagga atcttcatat tcctgtgagg    5940
atagtgaaac tttggagaag ctggagaggg ccaatagcca actgaaaaga caaaacatgg    6000
acctcctaga aaaattacag gtaaagaaat aaagatttga gcaaataagt acttcaatgc    6060
ctcctgcatg cacagaacta cctcaggaat gaaagggata tgtgcgtgga atgaaccatt    6120
gctaaccaag agcccatgta tcagactgtc caagtgctct ggggctacaa atgacatgtt    6180
aaattaaaca ttacttggaa aaaaatgcac cctcacaaaa tagctaaatg gcagttcaaa    6240
gtggaatctg cttaaatacc tgttgcatgt tatagatatt tggttaagtt aaagggagga    6300
ggaattgaat gtaggaaatt gatgaagttg tgaaggacct gggcttgagc tggaatctgg    6360
```

6854

```
agggttggtg gaagaaatga gtgaggaggg tctttaagtc aggctgagta ggagggtggc  6420
atcaatcaga aggacatggc agagcagcaa agttagccta gtgtcaattt aagatagagg  6480
ttggggagag gtagggtaaa tatgatagag gcagaatcgt aagtgacttt cagtgtcaag  6540
ccaaagaaca tggctttaat cctgtcaaga gggaaatctc tcaaagtttt tgggccatgc  6600
tgtagaaaga tcaatctggg aaccttgacg aggacagatt gagatgggag agaaggtaag  6660
gaggcctgct aaaagtcact tgtgaaaatc tgttgcggat gatgagagtt gtctagacta  6720
aaatggaaat tggaagagag ggagacatgt ctaggtaaat tgaatcccat gcaaatgtta  6780
catgtaatat taatacatca ttcctgccat cagggagttc acaattattt gagaatataa  6840
aatactatat atctgtctct aagcgcacac ttatacatgc aataagaaat ttattataaa  6900
gtcatattcg gtatttgcaa cttgtatgat gtgtgctatg tagccatgcc ctgaggggag  6960
gggcttaaga gtgatcacag gatgggggct agcaggtgac ccttctgaag tcttcgggga  7020
gatgacttca ggggagtttc agtgtctaat ggctcctcgg tttccactta ctcctcctct  7080
ccatttcccc aacaatgcac ctggctacaa actggaaaac actaaaactc tgcttctata  7140
tggtgagtcc cctgtcaaga ccagtcaaga gagacaggtt agaaatgagg gatcgctaaa  7200
gtagttgctt cccaagaatg ggaacactaa acttccttcg ctttctctta cattggctct  7260
ggctcataga aaatgtaaat cttttttct attcaaaaaa gggcaacata ctcttatttt  7320
caaaaagaaa actaaatggt tagtatattg tccattttta gttggatagg tcaatggcga  7380
ttaattattt gcccttatt agggaaggtg ggtttgtacc tgtttataa tgattcgtct  7440
gaactgttgt agactttttc actgacagtt cagtgtagtc atcatcagtt acttggccac  7500
ccctcacatc tataaatact gatgaaagcc caagtgtatg tttagagaac gccgtatttc  7560
agtcagagaa ggaaaatctc ttttagcact gcaatagtgt caggaatctc ctgtttctcc  7620
ttcagccagg ccagatccca ctcactcagg ggaacaccag tgggtgtaga ataaggattc  7680
ctactgttgg tgaggggggt gatttagtat tgaattattc gtgtgttcag tgagaagaga  7740
tgaagcatgg tagttccata gttacatctt tgtgaaacct aataaatcat cgtttcctgt  7800
aggttttcag agtatttgct tcacataata ttttattaag taatttgaag taattggtta  7860
atatgtgtaa ggactgtctc ctactataat gaatcatttg atttggagga ttttttttccc  7920
ccccaaacag gtagctcata ctaaaatcca ggccttggaa tcaaacctgg aaaatctttt  7980
gacgagagag accaaaatga agtctttaat ccggaccctg gaacaagaaa aaatggctta  8040
tcaaaagaca gtggagcaac tccggaagct gctgcccgcg gatgctctag ccaattgtga  8100
cctgttgctg agagacctaa actgcaaccc taacaacaaa gccaagatag gaaataagcc  8160
ataattgaag aggcacggcc tcagcagaaa gtgctcctta gaatactaca gagaggaaga  8220
gcctgcatgt cgctggccca aggctggacc ctgaagctga tggaaccacc taatactggt  8280
gctgagctcc tagtcacagc aggtggacct cgtgctcatc agagcatgcc aatcctaagc  8340
cattggacat atgtagactg gttttgttg ttgctatgta catataaata tatatataaa  8400
atgaacatag ttcatgcttt cagataaaat gagtagatgt atatttagat taattttttt  8460
agtcagaact tcatgaaatc cacaccaaag gaaaggtaaa ctgatatttc ccttggacat  8520
atgtgaaatc tttttgtctt tatagtgaaa caaagccaga gcatctttgt atattgcaat  8580
atacttgaaa aaaatgaatg tattttttc tccaaagaac agcatgtttc actcaatggt  8640
gaaaaggtgg aaacatttat gtaactttat gtgtatctgt cttgatatct actgacattg  8700
tctatatgag gaaaatgatt actggtcatg ctcctgtgag ttttttggga aggtagggtc  8760
atttctccct gcctgctttg tgccaactag catgttgcat ctacatgcat tatgagtctg  8820
gttaggcatt actttaaaca tacataaaga gacagtagga cattgtggct gagtctaccc  8880
agttcaaggt aaaggagaat gttgctaatt ttttagcaaa ctagaccagc attattactc  8940
aaactaaaaa tatcacacct gaaaaattta atttaggacc taaaatgtct agattagctt  9000
tctgcttttt ttatttgaat aactcattca gttgtgaatg aattcctctt tatttggtgc  9060
cacagtcacc aaatgacaag gatttgccac tttcccacca aattgtgagt gcttgtaatt  9120
taggtctctc taccttaaat tcagtataag gaaacgtaat tatgattgat ttttccaaa  9180
gatgacaagc tgtgttgaaa tacatttttt cttttgacca attgacagaa tctaataagc  9240
tttaataatc ttcccctttt atgtgaaaag ttttgagaac tgtgaaatgt ttaggaacaa  9300
actgttgaaa tccattggaa gggaaaaaag aaagtggtac cagtgttacc agctcaacta  9360
aaacctgcaa ttctgcattt caactcttca cttcctcagc ctacaaatag ctcattagat  9420
gacattcacg catgctgggt ataggcaagg aaagtaattt tcaaagtaca tttgcagttc  9480
tctttttcag agatgattct atgatagtgc ctctgaaagt tgatgcagca ttttttgcctt  9540
tccaaaaagt atttatcctc actgctttt gcagtacttg tattttcaca gatggattat  9600
ctggggtaat tttcttcaaa gggagtttgt tatacacagt gaaaatgtat tatagagtag  9660
aatagtaaag ctctaggggt ttcagaaagc tttgatgaac agatgacaaa catctgaaac  9720
cccctccgca ctgttaccca gtgtgtatat aatgacttgt tatagctcag tgtgcccttg  9780
aatccataca gttccttaaa agacaataaa atcttattaa taaagttaat gtaacttcta  9840
agttctagaa aatgctgatt ctgtctgccc cattcaattg ggggctacta attgatttgt  9900
tgcttggatt tcctgagaat ttctctattt gtaggagggg ttttttcttt ttacggtctg  9960
ttgatgacaa ttactttatg ggtgtgatgc accgatggta gccaaggaat ctgttgggga  10020
```

6855

```
agtttggaaa gaaacctttt ctttctttta ttcagtttaa agtaaacttt atcctggatg   10080
tttagaatca acattaagag ttatattatg gtgttcagag attaagctga cttggrataca  10140
atattttctt ttgaaaatga attttctttt tcatttgtga tttttaaaaa atgttgcacc   10200
agttatgctt catgcatcgt tacatcttca tcaggttaat gtaatgtcta gttcctttgc   10260
aataaatata ttgctgcagc tttctt                                        10286
```

<210> 9251
<211> 36352
<212> DNA
<213> Homo sapiens

<400> 9251

```
gtcgcccggg ctggagtgca gtggctcaat ctcagctcac tgcaagctcc gcctcccggg      60
ttcacgccat tttcctgcct cagcctcctg agtagctggg actacaggcg cccgccacca     120
tgcccggcta attttttttt tttttttttt ttttgtattt ttagtagaga cggggtttca     180
ccgtgttagc caggatgacc ttgatctcct gacctcgtga tccgcccgcc tcagcctccc     240
aaagtgctgg gattacaggc atgagcaccg cgcccagcct actattactt ttttaaaagc     300
acattatttt gaaattttaa attcagatta ggcatccatt tccaggacca ctatcctgaa     360
ttactgaaaa caggttacta tttttaagca ggctgagaaa aaggagccaa gatcttttta     420
atagttggtt agtagattta tttgcacata actgaaatga tagaggagag ggaatgtgtg     480
tattttttct tttacctcac tttgaattaa tttttcaaaa tttaatgtta tttcattgtt     540
tagtaaacta taatttata taatgttatg gtaattttta taacatctgc ttattaaata      600
ttatcacaga catatttgtt acttttaca gtgcttctca ggttttaagc ctgtgcttaa      660
aaatttattt atgttgaaat tcattgctca gaagtaaatg acagtcaaaa aaaagtaaat     720
gatagatact acttctattc actgataaaa cttttcaatg agaaaataaa atctttgatg     780
atgaagtact ttgtggtata gtttttgttc tatatttctc ttgtattcag tgaaaaaaaa     840
aggtataatt attcattgtg gttcattatt gaagtaacct taccatgact tattgatgac     900
ttattggaat gcctttatc ctgaatcctg atttggacat atttgtgtgt gctaattcca      960
ttccttgttt tcctgttgta ccagacaaga cactgcttca gaatcaaggt gattagaggt    1020
ctacgtattt ttatttaaaa aaaattcaca gattcttcca actgaacatc atccttagtt    1080
taaaaagcag tttttgtttgt ctcctgaatg catgccatct ttctgagtgc tctgagggct   1140
atatagtagg gaaaatgtga cccttggtgt aatcaaagac catgaattac catgtaaaat    1200
gttgattgca gacagaaatc ctgtttctac tctattccat gctgaaattt ccttagagct    1260
gtgctgtggc cttcaaccaa agcctaattt taattttaaa ttaatagaag tggatttgct    1320
agttagggggg tacatatgtg cctaagtgga gtttattcca aatgccaaga agatgcagaa   1380
atgagcatcc taaagaaac gtactcacaa aattgaatct gcctttcaac tgaagaggat     1440
tattcgtcta tttctgttca cctaaattcc tgtcacgttg gtcactttga gacactgcta    1500
aagccgttca gacctcccat ttgtctggac acaggaaaca cctagttcct tattatggaa    1560
gtttgaccac atctgtgttg acatctcttg actcacatgc ttttttgtgt gtgaacatct    1620
agaatcactg ctaacaacca ctgcaaataa ctgtcctctg ctttattcca gtttctacat    1680
gttgctttta tcatgagccc agtgaaaaag atacatgccc atcttcctat ttggggccac    1740
tatttagatt tctttgtagc tagagtgaaa atataatatt aagtatcgca ctagactgag    1800
atgttcaagg agaaaaaatc ctcagaaaat tattttagca acaattataa gattaaaaag    1860
tgactttttt gagactggta attggcaagt ctcagtcatg gttaggtgta agaccattta    1920
aataatactt cttacctatt cttaaaagcc taatggaaat gttagttctg ccttgtgtcc    1980
ttttaggtat ggaattagct ctgtttatta ctttagagtt aatctagtct atgatttcct    2040
tattttacac atggatagat tgaactccaa aaaggtttta tattttgctt gatttttttt   2100
cagcttaggt cataaggata taaataaaca tatgagatac ccagagatgt tttaaattcc    2160
aatatactaa acttattttc ttaaaatctg cagtgtgtag agtttaggaa ataaaactct    2220
ttgttttct gcttctttca tctacacgtt gttccactga ctaatctatc tcttttgact     2280
cataggtcaa atactatata ttgatttcca ctagaatagt ttaatctcaa ttttacttaa    2340
ttagtaaaga ttttccatag gataacagac atgtatgcag ttaaaagcca gaacctatat    2400
aaactgttag tgcacctgat gcaattatga gttaaattat actgtggatc ctgtagaaaa    2460
aatatggttt catttctatg aaatgaaatt gttttactta gcatttctta aggcttacaa    2520
agagaaagct ttttcagctt tcggttcaat agttgctatc acactaatga agttttggta    2580
tctatcttat gttgaattca ttgtgattta gatacagatt tagacagtgt tttgtcattt    2640
atttggactt cagagataga gtcttgctgt gtcattcagg ctgaagtgca gatgctggga    2700
gtttcaactg ggtgccagag ggttggggga taggaggcag gttgctgctc agtataacac    2760
cacctttgca agactggtcc tgacagaaga gtttgccttt gtgcaaagta tatctgtgtt    2820
gccctggcag gaagtaaaat atgactacat ccttcttaaa gttgagtctc tgtgagtggt    2880
```

6856

```
cattagagca tctccattct gtacaatagt caatgaattc ttttaaagca ggcaagtaga   2940
cattacaatt ctatgttaaa ataagaagtg ggatgttaat ttaagagttg atctggtgaa   3000
gactatacct gcttgttcaa ggatatgtta aaagattatc ttgaagcttt gacaagttca   3060
tattatagca tttgatggat cctatataca aaggacttgg aaatagcctt cctaccctat   3120
attggggggat atatgtaata cgggacattt tctccccata tgaagtctga atttgtgttc   3180
acaaactgtg gttcttaatt aactggtgag tggtaagagg gagtatatat acaatatacc   3240
agtcaaaaat gggtgggagt tctccaagtt atgtttcctt cctagatatt cattttttaa   3300
ctttgtcaat ttctgataga ggtaatgctg gcacagaata cttttcctga atatgtatct   3360
tgggaaggag ttttataata cacatgctta gattccaaaa tacaaaagaa gaaggaaaaa   3420
attctatgga aacataaggg aatggttata acttgcttca tcatttaaga aatgtaaaga   3480
tgattaaaat accagtgtat gtatattcaa ctatatttag gtgttttttt atttggtcct   3540
tctatttaca gttaaaagtg tatacatttt ggaatgtaat tatttcaaag caaagaaaag   3600
gaagtgagac atttacataa acgagcacct gatagtactc tgaagttatt tctctgttga   3660
tataaaatta atccattaaa aaatggaaag agaagtaccc aatcaaaagg cttagtgcta   3720
attggagact taattttttca ccagaaatgc agaggatcct gggggtccca acagctttgt   3780
ttttgtggtc ctatagagct ttgttcagaa ctaatgcaag gagtatttac actggcagga   3840
tcagctgcag tgcctaatgc tggattctgg accacctagg tttgcatcct ggttccttca   3900
ctttattatc cgtgtgactg tgggcaagtt acttagcctc tttctacttc agtattgcac   3960
caaaaatgga agtagtaatg acatctacct tgcaaggttg ctgtgaggat gaaattaatt   4020
catactcgta aaatgtttag aacaatcgat acctggcatg aagtatgtgc tgagagtctt   4080
agctttatta ttattacagt aaacaccacg tgttgtttta tttttgtttt tactcaaaaa   4140
gtagacatta tgctttctta cctaagttta atcaaaggaa aagttaatgt gataactaat   4200
gttgtaataa aaacaaacaa acaaaccaaa agaaataaac tccctccacc cccatcccag   4260
tgtagtttcc aagttgggtt ataggaattt tgatgcagtg tttcatttgg ttttgattct   4320
tgcaattgcc accttaagaa tgtcagattg ctgactaaaa gtaaatcaaa caggaaactg   4380
ctataagttg cataatagca ctgactgctt aaatgtttat tgggaacttg acttctgaat   4440
acagatcttc tcttattaaa agcagagctg cttttgccat atctcagcaa ccaactactt   4500
tttcaagatg tcgatttta gtacaagata aagggtcaat ggtttgttat gtaagttctt   4560
cttttcagta tattattatc ttctattttg actgctaatt ttttggctta ttactagtca   4620
gtaaattcca gacatgggag aaaaatttgt cattgggcag tttatattat aggatttaaa   4680
atttttaggtt tatgaaattt ttgaatatca gtgggctaat gtaaatactg tatgcgcctc   4740
ttttataaca tattgccccc aaaactttgt atttttatagg caatcatgaa actgatatgg   4800
gtacaactca gttttatttt tagtacgttc taaacacttg atatgtcatt agcagtgaat   4860
tggaaggtga ttcttaaaag ctgttttaat tccagcatta aaatataaac atttcggagt   4920
cctctgattt ggtcaactct ggtttgttag agcactaaaa aagtcaagct aaattaatat   4980
ttgttgatct tttgccctgt ggagcattga catagtgctt ttaaataagt ·atttcattta   5040
gctttcaaag cttaaagtat aaattagatg gctttatgta ggaaaggaat aacacttact   5100
agaaaaaata tgctttttgt tgtttattaa caacattgtc atggtcaata cctaccagtg   5160
ccatcaacag ttcagaacat actttagaaa aacaaagcta ttaggacttg actcccaata   5220
aagggtttta agaaggtaga tcttttattt attcctgaca tgttagccta gccagtattt   5280
ttgtctgttt cacttaaact tctgagttaa tatttcattt agttttataa aatattaatt   5340
tattcagtag atattattca gtgcttatta tttacctgtt actacactac aagctagaaa   5400
tatacctatg aactgggcat ttagcaaata actgccatca aggtcgtgtt acaaaaatga   5460
agataatgag tacttcaact gtatttattg ggttgtaact attatatata gaacatttga   5520
atcatatttt taaaagggaa atacttgcat taatgttttc caaagtgcaa gtaaaagcaa   5580
atatatatat atatatgtgt gtgtatatat atatatatgt gtgtatatat atatgtgtgt   5640
gtgtgtgtgt gtatatatat atatatatat tcaatattca ggaaggtttt ttgttttgtt   5700
ttgttttgtt ttttgggaca gagtcttgcc ctgttgctca ggcaggagtg cagggatgcg   5760
atctcggctc actgcaacct ttgcctcctg ggttcaagcg attctcccac ctcagcctcc   5820
tgagtagctg ggattacagg tgtgcaccac cacacctggc taattttttgt attttcagta   5880
gagacaggat tttgcccatg ttggccaggc tggtctcaaa ctcttgacct caagtgatct   5940
gcctgcctcg gcctcccaaa ctgctggaat tacagatgta agccattgtg cccagcctca   6000
gggagttttt ctaaaaaaaa aatttaatta taatttattt ttgacatgga gcctcgctct   6060
gttgcccagg ctgaaatgca gtggtgcatt ctcggctcac tgcaacctct gcctcccggg   6120
ttcaagagaa ccttgtgcct cagcctccca agcaactggg attacaggca cctgtcacta   6180
atgcccagct aattttttttt tttttttttg tatttttagt tgagacaggg tttcaccatg   6240
ttggccatgc tactcttgaa ctcctgacct caggtgatcc gcctgcctcg gcctcccaaa   6300
gtgctgggtt tacaggtggt gagccaccgt gcctggccac tgcctcagga gttttgaaca   6360
atggacacat attagggtta tagtgttatc caggatgcat aataaccaga gtttgactat   6420
attgagatat atgtatcaag tactgtactt tctaaagtat cacgtcataa tacttactct   6480
ctgcatagca gctcagaagt cttttttttta actttaattt agccaatcca gaagtaatgt   6540
```

6857

```
ttccataaaa tagatccaga ctagaatgaa ctgaattgcc tgagtaaata aagatacgat    6600
aggcagatgc tgaattgctc ttctcactat taattgcctc aacactattg agttcctttg    6660
agtatctgag agtggctgtt ctgtctgagc tttatttctg acctcagcac tgacctttttg   6720
attccatcaa aagtcttata ccttcatttg ttggtatcat cacctgtaaa tattggtatc    6780
cttattgttc tctcaggcaa actcagactg tgaaacttaa aaatgtaaga tattcctgcc    6840
actaacagca acaattattg tgaggtcttc cagcagcaaa tataattggt ctcaaaaatg    6900
attttgagtc ataccgacct ttttttgcag ataggcctag cataactcaa agtggtcttt    6960
tttaggaaat gaaattttga caatagagga gcattttctt atgcactaat atagaatgat    7020
gtgacactac tccctgtccc ccaaaaattg agggaggtga ttctagaatc aattaatttc    7080
aataagttgg ggaatttcta tacactgttt ccctgttgga gaggtacagt gcatgccagt    7140
gtattaacag tctctaacaa gtactgctat aaagaaatct gttaacattt tttaacaggc    7200
tgggtgtggt gcctcatgcc tgtaatccca gcactttggg agctgagaca ggagaattgc    7260
ttgagtgcag gagtttgaga ccagactgga caacacaatg ggacccggtc tctacgaaga    7320
tttttttaaa aaaatagcca ggtgtggcgg tgtgcacctg tagtcccagc tgcttgggag    7380
gctgaggtgg gaggatctct tgagcctggg aggtcgaggc tgcaatgagc tgtgattgcg    7440
ccactgcgct ccagcctggg tgaaaaaatg agaccttatc tcacaaaata aatgtcaata    7500
aaaatataaa aagatctatt ttttaactta gccatccaat cttatttgac cccagttttt    7560
tcttagtata tcacctacca ataatcccaa ggttgactgt tctgcttata ttcaggttat    7620
catctgccat gattcaactg ttggtagctg accattcaga gacacatctt aacagtcgta    7680
ggcaattaga aacagtcttt attgacctgt tctataagag ctctaacaaa agctctttgt    7740
gaggctttta tggaatattt accttgtttc aaataagcta ttcatgttat ttccttagca    7800
aagcatgaat tcatgactta agcaacctgt actcctcctt ataagtgctt ctgttcctca    7860
gattagaact aggactggtt ggctgctaag gaatgagtag aaacagggga gcttctcttg    7920
actgggctgt ggcctagatt gctgtttccc caggatgtgg tggcctgggt gactagtgtg    7980
cctggtgatg cattgctcca tgttgcctgt ggcttgtgct tgcccgtgac agaacttgtg    8040
aatggcttgt gctaccagtt ggttgtgaag tgccatgatg tgcagctctc cttataagtg    8100
atatgtttat ttgctttcaa cagtgatgga gaagggagaa aaaggacctc atctacctgc    8160
agcaatgagt ccctaagtgt gggaggaacc tctgtcactc ctcgccggat ctcctggcgg    8220
cagcgcattt tcctcagggt tgcttctccc atgaacaaat ctccctcagc aatgcaacag    8280
caaggtctgt gttgcactcc ctaaggaatt tatccctctg agtgtcagaa attagctaat    8340
ggaatgcacg tgctgtgtat aaagagattt aagtgattac agtgtagaaa tatctttctg    8400
tatgtgatac agtggtttct cttcaggta tcattagaaa acattaggca ttcaatacct     8460
gcttgttgaa tgaatgaatg agtgagacag tttccaaaaa cctgtacttg ggcctactcc    8520
acaaggtaga cggaactgtg atagtgctag gaaagaagct gtatgtcctt tttctttctt    8580
tctttctttc tttcttttt tttttcccag agattgggcc ttgctctgtt gcccaggctg     8640
gggttgcagt ggtgtaatca tagctcactg tagccttgaa ctcctgggct caagcaatca    8700
tcttacctca gcttccaaag atcttttat tattagaaaa gcaacatagc ctttttataag     8760
agccacacat aaaacaaact gacatagaaa tattgagcaa taaaggaata tatacaatat    8820
actaggcaaa tactgagcaa aagagagcac aggcagctct ctttgagtaa ttgacctatt    8880
aaactaaagc aaaagcatcc aaagaggcaa gcacatgtaa cagtaaacaa acagatagaa    8940
caatcatgag aacatacata atgatgtagc tttgagagct agaaaataac acctaaaaga    9000
attctggagt gaaatcgata aattaatagc tcctgtggga gattttaaca tactcatctt    9060
tagaaattaa atataaataa tatttgagta acacaaataa ataagcttga cctaatattt    9120
atagagaact tcgcctccta tggagaaaac tcattcattt ttagcacact tggaacattc    9180
ataaaatgta attatgtacc tgtccacaaa gatttttaag taaatctttt tgaaatccaa    9240
ataatcataa tcatttatac aaatattctc tgaccacaat gccaaaaaaa gaaagaaatc    9300
aaggattaga agacaagtag aatgacatgt gtttgggaat agaaaactac tcttagaagc    9360
tagaaggaag aaaattcaat gcttagagcc ttacctattg aaacggatct agggagcagt    9420
taaaagccat gaatatattg atataaaatc aagaaggcca aaaattagtt acactgagtg    9480
ttcaactcaa aaagctagta agagagccag gtattaaaat tttaaaacaa caacagtaaa    9540
acgtatggaa gtaaataata aaagtaaagg cagaggtcaa tgaatatata taaaaaaaga    9600
agaaaataga agaaaacaac tggtattact aaagatgaag ttaactctgc ccgaggtggt    9660
cagaaaaagc ttcacagaac aattagatgt ttatttaaac tcgttgctgg aagaaccatg    9720
ctttagaagg aaggaatgac gaagctctgg agtcatttga gtgaactttg cagatcagag    9780
aatcatgaga aattcagcat gatgaatgca aagaatagaa gattgagata tgaggctgga    9840
aatctgagtg gagaccagaa tctgaaggaa cttaaatgct agtcccaatt tgttcttgcg    9900
atataagcaa ccattgaaat gtttttaagag atgtgattat ggttgttaat aggaaaatca   9960
ttggcagtag gaaggagag aatgagtcac ctgttaaggg agtgttgcac atggaatact     10020
gcacagccat gaaaaataat gaaatcatgt cctttggagc cacatggatg tagctggagg   10080
ttattatcct aagaattaac acaggagcag aaaaccaaat actgcatgtt ctcacttata    10140
agcgggatct aaacattgag tacacataga aacaaagaag ggaacattag acaccgggac   10200
```
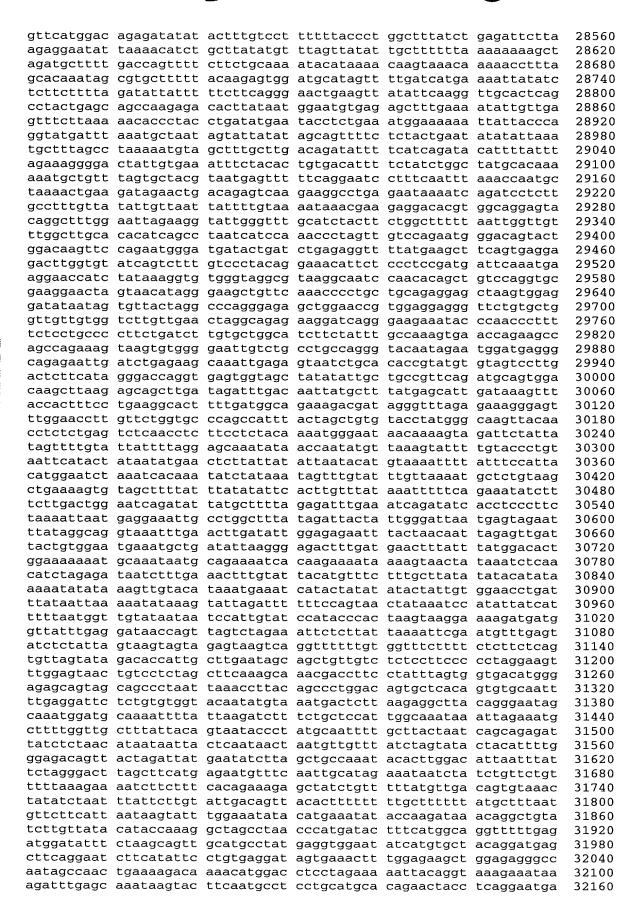
6858

```
cccccttgagg gtggagggtg ggaggaggat gaggattgaa aaactacctc tcaggtactg 10260
tgctcactac ctgggtggcg aagtcatttc atttgtacat tgtaccccag agtcacgtaa 10320
tttacccatg tagcaaacct gcacatggac cccttcaacc taaaataaaa attgaaaaag 10380
aaaaagaaaa aggtgttgca ggaggaatga gcagagggag tactgtgctc agccaggaga 10440
ggcccagcat tgctcagtgg ctatgctcct gacggatttt gatgatcgat gtgacccttt 10500
gggagatccc tgatacctag ccacttaatc tcgttcctca cagccagaga atatacgtaa 10560
gtaaattgca gaagtgttgg actcaggaga ggccagttag ttttggggca cctctcttac 10620
agagctcttt gggtggaaag aagaagtggt gaaatgacct atgcttctgt ttcatcatga 10680
cagggaaatc tggaagggga attcagtcta gtgaatttac ttaaatatta gctgcagaaa 10740
ctaagttaca gggaaagcgg ctttgtgaca ttttttaagtg tagaagatca gatgagaatg 10800
tgaattctac agaaacttgg gtagtctggg ttactgctaa ggaatgcctc tcactgtgtt 10860
cttctctgca gatggattgg acaggaacga gctgctgcca ctgtcccccc tctctccaac 10920
catggaggag gaaccgctgg ttgtattcct gtctggggag gatgacccag aaaagattga 10980
agaaagaaag aaatcaaaag aactgaggag cttgtggaga aaagctatac accaacaaat 11040
cttgttactt cgaatggaaa aagaaaacca gaaacttgaa ggttagccat tttaacagac 11100
taaatgctat gatgctatga ttgaagggtg tatgttaaac ctacctttct ctccccatac 11160
atactatccg cactcagttt tggactgtat gcacacttta agaagaatac ctactgatta 11220
taattgttga tttccatttt gtgaggtggt tataacatgg gaaaggtcag cttaagatat 11280
ttgtggtttt gtttttaaatg ggtttgcatt ttaaatagat ttaagactta agaaactctt 11340
agagtatatt taggtaaaat agaatgtaga taatatggaa tcaatgtatt tgatgtgtct 11400
gaaagttcat tatcttagtg tcacttctaa aaaatcctta aatatgagaa agcaaatttt 11460
cttttctttg aatgtgattt tcaagtttca ggttaattac attcataatg ggagaaatat 11520
gcctacctca agtaaatcct acttacattg tattcaattt aactatttaa ttataattat 11580
ctgttatcaa gccaaaccta ttcctatttt ttgttaatgc tttataaatt ttctatttaa 11640
caaagtcgta ttcaaatcat tatatttata atcaaataat ttataataga ttttgccccc 11700
cttgtggtgc cttattgcta agattatgat taccaaatgc tttggaatgt gtttttcagc 11760
ctttgaaaga atgatataat ttactccagt actgatagaa ccacatacaa ggagatgcta 11820
agaaatccaa aaaaatgtat aaatttcatt attttgggaa aatcacttaa cctgaaaggg 11880
tctcattttt acacttgtaa aatgaaacat ttaacataag tggtccgttt gacttttaag 11940
attattggca caagtataat ttagatattt ctctcacttg cctttatttt gtggtctttc 12000
atacagcttt tttagtatag gtattccaca tttctgactt tatcatctac cttaagattc 12060
ttgttactac acctatgatt caatttaatt ttttttatttt aacaatatat agtttgcaag 12120
agcacatttt ttaaaatcgc tgttagcaga gtgaaaagta cataggattt taaatatcct 12180
ttggaaatac atcttctttt cttcaaaatt aaaaatgcta ttacttgtcg ttagcataat 12240
tttaaaagtt cagtttgata aatggtctgc ccacttgagg tttcgcaggc ttcaaaagaa 12300
attgaattca tatttgtaag caagtagtta tattttgaac taactcagaa aaagaggttg 12360
aaaaaaaggt ggtcatcctt tcctcaaaaa atttaatgca tgaaactgta tttcacttgg 12420
gagtatgtac aaataaaatc tgatattaaa tatcaaaagg tggtttcaga atcatagact 12480
atttgaagta gaaatagcct tagagattac ttagctagat tcttcattct acagtagaag 12540
tagtgactgg cttgggaaag gtagagaatt aacctaaggt caaatagtga catactggca 12600
gagcaagtac caaaactcag gtttattcat cgtggttctc gggctttccc cagcacccca 12660
cagtatttct cagctgtgta tgttaatata aggaaatgga atgttttaca taaatggctg 12720
ctgtgtattc tgagatcagt tatactatat gattttacag gttaagaaag gaggtgacat 12780
ttagaataca ttctcagaaa ccttcatcgg ttctctgttt ctctgcctac ataacaaaga 12840
taaaaaatag tttaacctat gaaaattcta accaatggat aattatttct tgatagttct 12900
ttagtctttt ctagttaaac agttaagggc agatattaac tgtccctgtt caccatttta 12960
tcctcagggt gtgcggctgg cacataagca gatgctcgtg attattttaa atgatcaata 13020
atctagagaa gattagagaa aaactctaag gaagtaatta tgttttgtcc atcatgaaga 13080
aaataattag taaagttata tataggagta tatttgtttt tagccttaat aaagccacac 13140
cttttaaaaa attacttggt tatcagagaa atataaagca aatagccaaa cagccaagct 13200
agacagtgtt agaaagccat ctgtggtatc cggaaggaat agttttgtac tgtgatttat 13260
ctttagatta tgtttggact tttaagtagg aattttttact gccttgcttg aataacagtt 13320
tgttataaga tattttaagt cttttgaaat ggtttcaaac acactaagta aagagtaact 13380
ttcattctgc tgttgttttt gtgctgtcga ggacttggga tgcatgacaa agatttgtgt 13440
tgcaggaggt aaggtggccg agcgctgtga gcatgcatga atacagattg ctctgagatg 13500
ttcctgtcca ccgtgatcct aatgaagaga agaagtatac tcttgtgtct gctcttcctt 13560
ctcttttgaa atcagttttt catgataaag aacaaatcaa gatactggtt gctttttatag 13620
acatttcttt taatgagctc tgggcggata tgttagacca tcaaattaga gagaactcta 13680
tattatttta aaaatagaat tagtgttaac ttcagtgaaa ggaattttttc ttttttaagtt 13740
tattacaaat gaacacagga gggctgggtg cagtggctca cacctgttat cccagctctt 13800
tgggaggctg aggtaggagg attgcttgag gccaggagtt taagaccagc ctgggcagca 13860
```

6859

```
tagcaagacc ccatctttac aaaaaagttt gtcaaattag ccaagtgtag tggcgcatgc  13920
ctgtagtcct agctacccag gaggctgaga tgggagctca ggaggttgag gctgcagtga  13980
gctatgattg caccactgca ctccagcttg gggtacagag tgagaccctg tctctaagaa  14040
acaaaagcaa aaacaaacga aagagaaaat aacgaacatg ggaacacata agctagtttt  14100
attagttatt aagggcagta tggataactc tggaaacagt tataaaaatg tatcatgtta  14160
tggtcatata ttttttcaaat caagatgagc atgagtcttt gtcttctcat gtatggcaca  14220
tataaaatat taacacttca gtggtgtcaa aaaatggaaa attatagaat gatcaacacg  14280
gtttactttt tatacttagc agagtcgcca tatgtaagat acagagtaaa acctccttag  14340
gaggttattc ctcatttttt ttctcacatg aaatgactca aagcttggga ccctttcatg  14400
tatcctcaat ttgttttaaa ttttcttttt gagatacact accagttgat tcctgaaagt  14460
catttggtat ggttttacaa atacaatcaa acgtctaaag ttttacattt gaaaaacaca  14520
ttggtcttac gtaaattgtt tttttcctta gcaagcagag atgaactcca gtccagaaaa  14580
gttaaattag actatgaaga agttggtgca tgtcagaaag aggtcttaat aacttgggat  14640
aagaagttgt taaactgcag agctaaaatc agatgtgata tggaagatat tcatactctt  14700
cttaaagaag gtatttggga taatctcagt aattttgtt ttttaaagaa aagcctgggg  14760
gatttttttt ttttgtttga tttgtggagc tcagattttg cttagtaatt ttgtccttgt  14820
gttttgctta gtaaaaaaag agaagtaatt tgtttcttcc tgtagtttag tgactgtctc  14880
tgaggaggta gcacaaacct attttcagca tggtggtggt gtttaccaag gaagaagtgc  14940
atgcattgat acaaatcttt gatcactgcc ataaaaatat taataattca gtctttcaaa  15000
cttgactcat tttcatcatt tggtcagaag tattcattta catatatgtg tatatttaca  15060
tgactgtgta tatatacttg tatgtattta tatgtataga tttatattct ggctaagtaa  15120
tcaatcaatt ttctttcatc cattcatttc ttcactaatt ttggagaagt tgctttttatt  15180
tagccattat atcgcattta ttcttttatt gctgctatgc catataagat gcctgatatt  15240
taagaatttt aaatttaaaa ataaaactaa taagtcaact tttagttgca gtttctgtga  15300
ctcagattaa atatatattaaa attagaatct ccatagcctg cataaactgt gggtgtaaaa  15360
taaaaattcc aaaatacccca aagaaattct ataatgattg ttgtttttaaa agcctatgct  15420
aatgtgtgag actgttgagc cacagttaag tttaaattaa dataagtgtt attttgaaag  15480
ctgctgcatt gacaaactta atatagtgtt ctttatcctt gaagatatgg aaatcctaaa  15540
gatttttact gaatgcttta tttgggagac acaataatgg ttaacagaat gtctatgaga  15600
tgtagatcac accattttt ggcatgactt tcaaagatat tttaggagtg cttatcttcc  15660
tatttcttat tggatacagt ttaaacttct tggccctgtg cccaaggcct ttgtactagt  15720
ccattttttag gctgctgata aagacaaacc caagactgag taatttctaa agaaaaagag  15780
gttttatgga ctcacagttc cacgtgtctg gggaggcctc acaatcatgg cggaaggtga  15840
aaggtgtgtc tcacatggag gcaaacaaaa gagaatgaga accaagtgaa aggggtttct  15900
ccttaacaag ccatcagatt tcatgagact tactcactac cacaggaaca gtatgggggga  15960
aactgccccc atgattcaat tatgtcccac cgggtccttc tcactacaca tggaattatg  16020
ggagctacag ttcaagatga gatttgggtg gggacacagc caaaccatac cattgttcta  16080
taatatctac ttcctccttt ctgatctcat tttgttatct ctccttacct tgtattgtgt  16140
gctctatttt actttgagca ctgatatgtc ctttgctatt tcttgcatgg aatgttccag  16200
ccctccctat tctccttctt ccttacttct ctacattctc atttcccatc tcccttttctt  16260
tccactccat cctcttctca ctcctctttc ttccgccctt tcctctgccc gtctcagggc  16320
ctttatgcgg tcctctcctg gagtgactgc tgcctgcgct ttaagcccag agcatcctat  16380
tatccctcag gtccctcaaa taccatttcc tcagagcacc accctgccc cccgaccaaa  16440
atcagttcat tgtactttat cattcttttt cgtgatttat tatacttaat cataatttac  16500
agtttaataa ttatgtgtgt atttgtttaa tgtttttctt accccaccac tgcacaccta  16560
gcacctaaga cagtatcttg cactcattac tagatgaatg aatggatgaa tgaatgaatg  16620
agatgatttt cctgagaatg gatttattca tcactcaatg atgaggcatc ctgactgcct  16680
tgctttattc tctgttacat actggatgct caataaatgt ttgtttgact ggaatgaagt  16740
tgctttttgt acatttatta ttggttggat aataaaactg cccactcatg ttatcagtga  16800
ttcatttagt gggctgatag ttaccttcta aaaatgacat tttctatgct gtcattgatt  16860
cattcaacaa atgtataagc agcaaggtat attcttggat tttatcatac agagatgaaa  16920
atatgcttgc tattctcaag gaccatttaa gccgggaaaa gagacaaaac ttcaatatag  16980
agctaactgt aatctaatat ggtaatgtta cagtatgagt caaatggtgt gtgaaaaggg  17040
actgattaca tctcgagatg ttagggagag cttcaaaaga aaaggtgaca ctcaagctca  17100
ttcatgaaag atgaatagac gtacaatggg aagtcaagcg agggagcttg gaattccata  17160
aaggcaacag gaggtgcaag aaactggaga agtgaaaata accacaagcg tctagtatac  17220
atcagggact gggaagtaat ggtgcttaaa aaggtagttt ggagctatat tgtagaggcc  17280
tcataagtca tgccaacgag cctcagtttc acctgtcgga caataatact ttcagcttgt  17340
acaaactctg gcaatcagtc agaagagatt actgtcatta agcatttcct taaccagctg  17400
gagcaaagga acccattgcc gattcaatgt gtccaaactg aaaactctta gtgagtgaaa  17460
taaagttgcc tgcactgtgc agaattgaat tctgtccctc ccagtgctta cttcattcc  17520
```

6860

```
tttttttttt ttttttttttg ctggaaagaa gtactggtta gcataaaatg tttcctccca 21240
tatcgtatat gtgaagatgg tatggtggcc tggcagaact tggggtgaga gagggagaga 21300
ctcttagtta catggtgact ctaagcaact ctcactggtt tgggaaagag tgtctgttta 21360
ttcttggagg tcactgaatt gcaatttcac tgttgtctcc aaggcatgag gacatttcaa 21420
aaaatatttt ccttcttttc ctctgcagga aggacgtttc ctactcaccc ttacttttca 21480
gtacagcttg ggccaggaca gctgtcactg tttaacctcc tgaaagccta ttctttgctg 21540
gacaaagaag tgggatactg tcaggggatc agctttgtgg ctggagtcct gcttctgcac 21600
atgagtgaag agcaagcctt tgaaatgctg aaattcctca tgtatgacct cggcttccgc 21660
aagcagtaca gacctgacat gatgtcgctg caggtgaggc acttgtgctt cccgaggaag 21720
gtgtgagact attaccagaa atcctggccc tcttctcaat tattacagtt cagatttaaa 21780
gaaatgtaga gccattgtct tagaacttgg gtaaagattg gggcatgttt tagttcactt 21840
agtgtgggat ttgctattta ggtaaacttc taagtgtatg agacccagag gcagaatacc 21900
ttttccataa aattcctgaa gtaagtaaat aagtaattta agaaaggtag gtgatgagga 21960
cccagtcctt tatgccctaa gtctatgggt tacatggaga aggtatcaaa tcatctttat 22020
tcacttttc tcaacttctc agttgaaaag gctcacagat cttttgttta caatctgaaa 22080
gtatctttat ccctttactt ttgagtacac aaatagcaga taccatgtta tggttctttt 22140
tgaacttatc attgatatct cccctccttt atcttcatgt aagataggcc tttacagagg 22200
aaaaagtgtg aaagccagtg gtgcctttc agtctgcttt gtgtgtgtgt gtgtgtatgt 22260
gtgtgtgtgt gtgatggaat cttgctttgt tgcccaggct ggagtgcagt ggcacgatct 22320
cggctcactg caatctctgc ctcccgggtt caagccattc tgctgcctca gcctccccag 22380
tagctgggat tacaggcagg tgccaccatg cctggctaat tttttgtat ttctagtaga 22440
gatggggttt caccatgttg gccaggctgg tgttgaactc ctgacctcag gtgatccgcc 22500
cgcctcagcc tcccagaatg ctgggattac aggcttgagc cactgagtct gcttttctta 22560
gcaggctctg aagaagcacc attaagattt tccaggtatt ttgagtgggg tattaactgc 22620
cactgctgtc tttagcctac ctcagactcc ctgtttgcac atttctctcc tagttttcac 22680
ttctctaagt gggttggttg ctaataagca gtttaaattt tgtctataga tacttaaaca 22740
accactgcct ggcaatttaa agctttcagt ggttaaaaat ataaaagaag actttaaaga 22800
ggattctcag gtttttcctc ccttgaaatg aggtatgcat gactcccagt tcatcataat 22860
actgtgcttt agataagaag taatagttta aagatgcttt taaaatatac tatttttttc 22920
tgtttcccag agatgagttt tttgcctta atatctcagt tgccaatgta taacaaaaga 22980
attgtatttt tagtctgagc gttatagtaa atgatatttt ttgagagtat gaatggagat 23040
gaagtattcc attttttcttt actttctgaa ggtaaaattt tgactgggga datagggctt 23100
tgctatcaac attaggtttt ctggtgtgag ttcatatgat ttgattcctc attgatgact 23160
attcgtaggt ttaacaagtc aaataacaac tgtggaaagt tttatttttt attcctaaag 23220
agtttacctg tatctttta tcttttatc gtttttttttt ttttggaga cggagtcttg 23280
ctctgtcacc caggcaggag tgcagtggcg cgatcttggc tcactgcaac ctccacctcc 23340
tgggttcaag tgattctcct gcctcagcct cccgagtagc tgggattaca ggcatgcact 23400
accataccct gctaaatttt ttgtattttt agtagagttg gggtttcact gtgttgggca 23460
ggctggtctc aaacttccgg acctcaggtg atccacctgc cttgacctcc caaagtgctg 23520
ggattacagg cgtgacccac tgtgcctggt cacctgtatc ttaatatcag ataggaatca 23580
gatggtcttg taaggaattc aataattctg attttcagaa acaacggttt ggtagctatt 23640
attagaattt caaagataca gggaagtacc tgtgagtagt gtttgatctg ggtccacaga 23700
taaaaggata atagctatca gtttaaaaat acaatgatat ttcaacttaa aaattattca 23760
tcaatttgac attacaaaaa ttcatgtaaa tcggatttat acattcattt aatatggact 23820
gtaagtacca agaagtattt tatgtctata attttgaaaa tgcagatgtt taaaaatctt 23880
tggtgacagc attgctgtag gccgcagtat tggggacctt attctgggag agtaggtcct 23940
tttgcatttt aaagtgagat ataacacttt tccactttct agagcaggag gtactgtttt 24000
gggtatagcc aataggatgt ttagaagtgt gcttaaatgc ctcttgcagt gggtttggac 24060
tcactccaca ggatttctga tttcttgctt ctctcttggt ggcttgggtg ctccaggctt 24120
cagttacctt atctgtaaaa tgtgtaaaat cttgcttcag ttaccttatc tgtaaaatgt 24180
gggggttgag gtcttttca actttaaata catgtatctt gtcacgtttg tttctgctgc 24240
tttctgtgtt aagcataaag acattatatc ttttcctctg aagtttttgg tctctacttt 24300
tttttcatct tctctcccct accttatct ctctctgtgc atctttcctt ctccagttca 24360
cctctttaat ctgcaggttt gccttggtat ctataaggtg gaattgaaga attatttgtt 24420
cttagaaaat agaattttat cattaaagct ttctttgaag gaagcctgaa ttgtgttctt 24480
atttgcccaa atatcccttg atggaagaaa ctctcttaac tcccatttga gtatgtgcgg 24540
cagggtaggt gggaaataag attctcttta aaaaattaca tgttgaagta ttgcttcttt 24600
ttataatcac aagtgaacaa gaacagtgtg cttttgatga cgtgctttct ttttatgctg 24660
ctaattagac ttttttgatt tttgtgctta ccaaaatact aactcttttg ttgatagatg 24720
ctcagaattt ctcgtttcta cgatgtaaat ggtctaaagg aaatgtatgt ttttttttcaa 24780
catgattttt tgagataata atctcattaa aaaaaaactt tgactccagc taagcttctt 24840
```

                              6862

```
attttatagc tatgacttcc tgtggctctt taactccctt ttatttacag tttgtgtgga  24900
aacggagttt ctaaagatat ttgttgtgga taaggattga acaaacaatt ttttgtattt  24960
ttgcatagtt tttgattttt ttccaaagga gtctgttgat ttttagttct gtactctaga  25020
aataattgtt gaattcacaa cataattggt tattttttatg tattgtcata gagctattta  25080
agagtgatgt tttaataatt tcttctagtg aaagaagttc tgctagattt aataaaacat  25140
tttatacatt tttacaccaa aatatcaagc caatataact gatcagggaa ccatcactta  25200
tctcttaact gtgtggataa aaatttaaat taaaacacaa ttcacaaatt tgtttgttac  25260
ttactactgc tttatctgta gtatcacaga tatgagttta aaagtttctg tatgctgtct  25320
ttatgatgtt ttctgaaatg ccaataacca actcagtagc caaatgaaat aattttttct  25380
tttagttcta gaaatattca gaaacaactg cactttttgc cttaatcacg tttgtcatga  25440
aaaatatgct gctggaataa cttgaatatt agaaataaat ctcaagcttc tggccctgta  25500
acattcgaag ctttaattct ctcctagcag tgcagattgt ctggagagcc agaactcttt  25560
cataaatcac atgctggtct cagtaaatag aaataagctt ctgcactgaa catggtagat  25620
tctttagaat ggaggctttt ctggaattag tctgaaatta gaagggattt tctatgaggt  25680
tcctgagcca ggactgttct cattaaattc caaaagcaat gcctccctac agaagaaaaa  25740
attccatttc tttgtatgta tgtgatgctc aaacacacgt gatagagaaa cttgctcagt  25800
cttcttagat agactttcag tgacttgctt tatgaattca gttaagtgaa cttggatttt  25860
agtatcaact ttaaaatcat aaaaataaag taatactact tatatatgtg aatttgttat  25920
taaatattag aataaaatta aaatcagtgt gtttgatgca catgcagata aatgcataat  25980
attttttttc ttctccaaat taactttaga ttcaaatgta ccagctgtcc aggctccttc  26040
atgactatca cagagatctc tacaatcacc ttgaagaaaa tgaaatcagc cccagtcttt  26100
atgctgcccc ctggttcctc acattgtttg cctctcagtt ttcattagga tttgtagcca  26160
gagttttttgg taagagatac ctgtaattaa atggaacagt attatttatt ccaaggacta  26220
tacttctact tctagccata tgatgcccct attgttctat catgtgttat acagaatagc  26280
aaattgctaa tggaatttaa taaatgtgcc tggctgtgtt ctgacagtaa cttaaaatca  26340
tacttgtctt acataaaatt gaaattaaaa aggaaagagg aattgggctc ctgtatttga  26400
gtcagctgta atggagctct tattttcatt tgtgcctaaa aatcagagag tatactccta  26460
aaatctggac tagggacaga ctgtgtataa ttttccagat ttttatatac atgtttctac  26520
ccccattgtc ttcttcatct tgcattcaaa acacagagaa atatgttctt aactgtatca  26580
atgttgtttc taatggcatt tcttaacctg actttttgtt gttaacagaa taactttaca  26640
tcctgtttca ttgctcatgt gactcttctt tcatgccaat gcagtgctgg gggacagtct  26700
ctaagactgg tggctcaggg aaaacactaa gtacagtcag tagagctcag ggcaagttac  26760
tgagtaactg ccttgctcta agcacagtgt ttggcattgg gaataaaaag agagtgtaac  26820
atggtttatg tccccttt gg aggcccttaa atctattcac aagtctttat actagtctaa  26880
gtctgttatt taaaaagcaa aaattaaaac aacaacaaca acaaccaact cttcatcaga  26940
ggtttgttct aatgatgttg tttaggacct cagtagcctt agaaagggct cccttaattt  27000
ttatgttctg ataatctatt tagtagacat gggcaaagca gtcagtattc actcacaact  27060
gcacttctgt taaattggag ctttttgtca aattgtattg gcgccattgt aggtcattgc  27120
cagtgtttga aaaaatgaaa cagcatttag tgaagatatt agggaatatt acaaatagta  27180
aggaaatatg ttgtttggag aaatttgttt tgaggatata tgtgtaatgt atatatatac  27240
cagattacaa catatgatat ctttcttatt gagggctgtg gtttaaaagt taaacactgc  27300
attagtgtta ctacaattta taaaatgcag caaaagagta aagtgaaaat gcgctgaatc  27360
aaatgttcac cagatttctc ttgtttattg aatatacact attgcttttc tacagtgaca  27420
ttttctctgg agcttgggtt cctattaatg ggtattctat aaatccttt gtttatatac  27480
atttttcttc ccagagaata gtgtatcaaa tcaaaatgat gtttcagggc acctctcttt  27540
tacttaccct tggaagcttg atatcaagag ttcaagaaac aaatgtcctc agtatcagtt  27600
ttttgtcatg agaatacaaa tgatgctgtt ggctatacaa tagctgttca actctcttct  27660
ttgaatttat aaaacaatgg agactggcag gaaatggaaa gatgcatgag caagaagaat  27720
tactatgaaa taatgattct atggttccct cttcattaaa gactccctgt tgtatattat  27780
tgattaaaga atgacataga ttgagagaaa ctttcataaa aaagtactaa gtacttgata  27840
cttttatttc tttctttttt tatttttcta agactgagtc ttgctctatt gcctaggctg  27900
gagtgcaggg cacaatatca attcactgca acctctgcct cctgggttcg agcgattctc  27960
ctgcctcagc ctcccgagta gctaagacta caggcatgtg ccaccacact cagctaattt  28020
ttgtattttt cgtagagacg gggtttcacc atgttgacca ggctggtctg taactcctag  28080
cctcaagcca tccacccacc tcagcctccc aaattgttgg gtttacagat gtgagccaac  28140
acgcccggcc tagtacttga tacttttcaa aagtattgca tgtttgtatt tgtaggaaag  28200
cagggcttag agttagggta gctcttatat ttctctcctg attgaggttg tatgttttc  28260
atttgtttta attttctgt taatgttttt ttttttaa tttcctggtg tggtatagat  28320
ttaattacat agctggttca tttactttt attatggtaa tgagagtttg aatagtactc  28380
attggttatg ttaatttgtt tttgtattcc tgttgtgaag aaaaatctaa atatcaattg  28440
aataactgtc cttgaggttt acctagtctc cattaaattt ggcattaaaa attacaagta  28500
```

6863

```
gttcatggac agagatatat actttgtcct tttttaccct ggctttatct gagattctta  28560
agaggaatat taaaacatct gcttatatgt ttagttatat tgctttttta aaaaaaagct  28620
agatgctttt gaccagtttt cttctgcaaa atacataaaa caagtaaaca aaaaccttta  28680
gcacaaatag cgtgcttttt acaagagtgg atgcatagtt ttgatcatga aaattatatc  28740
tcttctttta gatattattt ttcttcaggg aactgaagtt atattcaagg ttgcactcag  28800
cctactgagc agccaagaga cacttataat ggaatgtgag agctttgaaa atattgttga  28860
gtttcttaaa aacaccctac ctgatatgaa tacctctgaa atggaaaaaa ttattaccca  28920
ggtatgattt aaatgctaat agtattatat agcagttttc tctactgaat atatattaaa  28980
tgctttagcc taaaaatgta gctttgcttg acagatattt tcatcagata catttattt   29040
agaaagggga ctattgtgaa atttctacac tgtgacattt tctatctggc tatgcacaaa  29100
aaatgctgtt tagtgctacg taatgagttt ttcaggaatc ctttcaattt aaaccaatgc  29160
taaaactgaa gatagaactg acagagtcaa gaaggcctga gaataaaatc agatcctctt  29220
gcctttgtta tattgttaat tattttgtaa aataaacgaa gaggacacgt ggcaggagta  29280
caggctttgg aattagaagg tattgggttt gcatctactt ctggcttttt aattggttgt  29340
ttggcttgca cacatcagcc taatcatcca aaccctagtt gtccagaatg ggacagtact  29400
ggacaagttc cagaatggga tgatactgat ctgagaggtt ttatgaagct tcagtgagga  29460
gacttggtgt atcagtcttt gtccctacag gaaacattct ccctccgatg attcaaatga  29520
aggaaccatc tataaaggtg tgggtaggcg taaggcaatc caacacagct gtccaggtgc  29580
gaaggaacta gtaacatagg gaagctgttc aaacccctgc tgcagaggag ctaagtggag  29640
gatataatag tgttactagg cccagggaga gctggaaccg tggaggaggg ttctgtgctg  29700
gttgttgtgg tcttgttgaa ctaggcagag aaggatcagg gaagaaatac ccaacccttt  29760
tctcctgccc cttctgatct tgtgctggca tcttctattt gccaaagtga accagaagcc  29820
agccagaaag taagtgtggg gaattgtctg cctgccaggg tacaatagaa tggatgaggg  29880
cagagaattg atctgagaag caaattgaga gtaatctgca caccgtatgt gtagtccttg  29940
actcttcata gggaccaggt gagtggtagc tatatattgc tgccgttcag atgcagtgga  30000
caagcttaag agcagcttga tagatttgac aattatgctt tatgagcatt gataaagttt  30060
accactttcc tgaaggcact tttgatggca gaaagacgat agggtttaga gaaagggagt  30120
ttggaacctt gttctggtgc ccagccattt actagctgtg tacctatggg caagttacaa  30180
cctctctgag tctcaacctc ttcctctaca aaatgggaat aacaaaagta gattctatta  30240
tagttttgta ttattttagg agcaaatata accaatatgt taaagtattt tgtaccctgt  30300
aattcatact ataatatgaa ctcttattat attaatacat gtaaaatttt atttccatta  30360
catggaatct aaatcacaaa tatctataaa tagtttgtat ttgttaaaat gctctgtaag  30420
ctgaaaagtg tagctttat ttatatattc acttgtttat aaattttca gaaatatctt   30480
tcttgactgg aatcagatat tatgctttta gagatttgaa atcagatatc acctcccttc  30540
taaaattaat gaggaaattg cctggcttta tagattacta ttgggattaa tgagtagaat  30600
ttataggcag gtaaatttga acttgatatt ggagagaatt tactaacaat tagagttgat  30660
tactgtggaa tgaaatgctg atattaaggg agactttgat gaactttatt tatggacact  30720
ggaaaaaaat gcaaataatg cagaaaatca caagaaaata aaagtaacta taaatctcaa  30780
catctagaga taatctttga aactttgtat tacatgtttc tttgcttata tatacatata  30840
aaaatatata aagttgtaca taaatgaaat catactatat atactattgt ggaacctgat  30900
ttataattaa aaatataaag tattagattt tttccagtaa ctataaatcc atattatcat  30960
ttttaatggt tgtataataa tccattgtat ccatacccac taagtaagga aaagatgatg  31020
gttatttgag gataaccagt tagtctagaa attctcttat taaaattcga atgtttgagt  31080
atctctatta gtaagtagta gagtaagtca ggttttttgt ggtttctttt ctcttctcag  31140
tgttagtata gacaccattg cttgaatagc agctgttgtc tctccttccc cctaggaagt  31200
ttggagtaac tgtcctctag cttcaaagca aacgaccttc ctatttagtg gtgacatggg  31260
agagcagtag cagccctaat taaaccttac agccctggac agtgctcaca gtgtgcaatt  31320
ttgaggattc tctgtgtggt acaatatgta aatgactctt aagaggctta cagggaatag  31380
caaatggatg caaaatttta ttaagatctt tctgctccat tggcaaataa attagaaatg  31440
cttttggttg ctttattaca gtaataccct atgcaatttt gcttactaat cagcagagat  31500
tatctctaac ataataatta ctcaataact aatgttgttt atctagtata ctacattttg  31560
ggagacagtt actagattat gaatatctta gctgccaaat acacttggac attaatttat  31620
tctagggact tagcttcatg agaatgtttc aattgcatag aaataatcta tctgttctgt  31680
ttttaaagaa aatcttcttt cacagaaaga gctatctgtt tttatgttga cagtgtaaac  31740
tatatctaat ttattcttgt attgacagtt cactttttt ttgctttttt atgctttaat   31800
gttcttcatt aataagtatt tggaaatata catgaaatat accaagataa acaggctgta  31860
tcttgttata cataccaaag gctagcctaa cccatgatac tttcatggca ggttttttgag 31920
atggatattt ctaagcagtt gcatgcctat gaggtggaat atcatgtgct acaggatgag  31980
cttcaggaat cttcatattc ctgtgaggat agtgaaactt ggagaagct ggagagggcc   32040
aatagccaac tgaaaagaca aaacatggac ctcctagaaa aattacaggt aaagaaataa  32100
agatttgagc aaataagtac ttcaatgcct cctgcatgca cagaactacc tcaggaatga  32160
```

6864

```
aaggatatg tgcgtggaat gaaccattgc taaccaagag cccatgtatc agactgtcca 32220
agtgctctgg ggctacaaat gacatgttaa attaaacatt acttggaaaa aaatgcaccc 32280
tcacaaaata gctaaatggc agttcaaagt ggaatctgct taaatacctg ttgcatgtta 32340
tagatatttg gttaaattaa agggaggagg aattgaatgt aggaaattga tgaagttgtg 32400
aaggacctgg gcttgagctg gaatctggag ggttggtgga agaaatgagt gaggagggtc 32460
tttaagtcag gctgagtagg agggtggcat caatcagaag gacatggcag agcagcaaag 32520
ttagcctagt gtcaatttaa gatagaggtt ggggagaggt agggtaaata tgatagaggc 32580
agaatcgtaa gtgactttca gtgtcaagcc aaagaacatg gctttaatcc tgtcaagagg 32640
gaaatctctc aaagttttg ggccatgctg tagaaagatc aatctgggaa ccttgacgag 32700
gacagattga gatgggagag aaggtaagga ggcctgctaa aagtcacttg tgaaaatctg 32760
ttgcggatga tgagagttgt ctagactaaa atggaaattg gaagagaggg agacatgtct 32820
aggtaaattg aatcccatgc aaatgttaca tgtaatatta atacatcatt cctgccatca 32880
gggagttcac aattatttga gaatataaaa tactatatat ctgtctctaa gcgcacactt 32940
atacatgcaa taagaaattt attataaagt catattcggt atttgcaact tgtatgatgt 33000
gtgctatgta gccatgccct gaggggaggg gcttaagagt gatcacagga tggggctag 33060
caggtgaccc ttctgaagtc ttcggggaga tgacttcagg ggagtttcag tgtctaatgg 33120
ctcctcggtt tccacttact cctcctctcc atttccccaa cactgcacct ggctacaaac 33180
tggaaaacac taaaactctg cttctatatg gtgagtcccc tgtcaagacc agtcaagaga 33240
gacaggttag aaatgaggga tctctaaagt agttgcttcc caagaatggg aacactaaac 33300
ttccttcgct ttgtcttaca ttggctctgg ctcatagaaa atgtaaatct ttttttctat 33360
tcaaaaaagg gcaacatact ctattttcaa aaagaaaact aaatggttag tatattgtcc 33420
attttttagtt ggataggtca atggcgatta attatttgcc ccttattagg gaaggtgggt 33480
ttgtacctgt tttataatga ttcgtctgaa ctgttgtaga ctttttcact gacagttcag 33540
tgtagtcatc atcagttact tggccacccc tcacatctat aaatactgat gaaagcccaa 33600
gtgtatgttt agagaacgcc gtatttcagt cagagaagga aaatctcttt tagcactgca 33660
atagtgtcag gaatctcctg tttctccttc agccaggcca gatcccactc actcagggga 33720
acaccagtgg gtgtagaata aggattccta ctgttggtga gggggtgat ttagtattga 33780
attattcgtg tgttcagtga gaagagatga agcatggtag ttccatagtt acatctttgt 33840
gaaacctaat aaatcatcgt ttcctgtagg ttttcagagt atttgcttca cataatattt 33900
tattaagtaa tttgaagtaa ttggttaata tgtgtaagga ctgtctccta ctataatgaa 33960
tcatttgatt tggaggattt tttccccccc aaacaggtag ctcatactaa aatccaggcc 34020
ttggaatcaa acctggaaaa tcttttgacg agagagacca aaatgaagtc tttaatccgg 34080
accctggaac aagaaaaat ggcttatcaa aagacagtgg agcaactccg gaagctgctg 34140
cccgcggatg ctctagtcaa ttgtgacctg ttgctgagag acctaaactg caaccctaac 34200
aacaaagcca agataggaaa taagccataa ttgaagaggc acggcctcag cagaaagtgc 34260
tccttagaat actacagaga ggaagagcct gcatgtcgct ggcccaaggc tggaccctga 34320
agctgatgga accacctaat actggtgctg agcgcctagt cacagcaggt ggacctcgtg 34380
ctcatcagag catgccaatc ctaagccatt ggacatatgt agactggttt ttgttgttgc 34440
tatgtacata taaatatata tataaaatga acatagttca tgctttcaga taaaatgagt 34500
agatgtatat ttagattaat ttttttagtc agaacttcat gaaatccaca ccaaaggaaa 34560
ggtaaactga aatttccctt ggacatatgt gaaatctttt tgtctttata gtgaaacaaa 34620
gccagagcat ctttgtatat tgcaatatac ttgaaaaaaa tgaatgtatt tttttctcca 34680
aagaacagca tgtttcactc aatggtgaaa aggtggaaac atttatgtaa ctttatgtgt 34740
atctgtcttg atatctactg acattgtcta tatgaggaaa atgattactg gtcatgctcc 34800
tgtgagtttt ttgggaaggt agggtcattt ctccctgcct gctttgtgcc aactagcatg 34860
ttgcatctac atgcattatg agtctggtta ggcattactt taaacataca taaagagaca 34920
gtaggacatt gtggctgagt ctacccagct caaggtaaag gagaatgttg ctaatttttt 34980
agcaaactag accagcatta ttactcaaac taaaaatatc acacctgaaa aatttaattt 35040
aggacctaaa atgtctagat tagctttctg ctttttttat ttgaataact cattcagttg 35100
tgaatgaatt cctctttatt tggtgccaca gtcaccaaat gacaaggatt tgccactttc 35160
ccaccaaatt gtgagtgctt gtaatttagg tctctctacc ttaaattcag tataaggaaa 35220
cgtaattatg attgattttt tccaaagatg acaagctgtg ttgaaataca ttttttcttt 35280
tgaccaattg acagaatcta ataagcttta ataatcttcc ccttttatgt gaaaagtttt 35340
gagaactgtg aaatgtttag gaacaaactg ttgaaatcca ttggaaggga aaaaagaaag 35400
tggtaccagt gttaccagct caactaaaac ctgcaattct gcatttcaac tcttcacttc 35460
ctcagcctac aaatagctca ttagatgaca ttcacgcatg ctgggtatag gcaaggaaag 35520
taattttcaa agtacatttg cagttctctt tttcagagat gattctatga tagtgcctct 35580
gaaagttgat gcagcatttt tgcctttcca aaaagtattt atcctcactg cttttttgcag 35640
tacttgtatt ttcacagatg gattatctgg ggtaattttc ttcaaaggga gtttgttata 35700
cacagtgaaa atgtattata gagtagaata gtaaagctct aggggtttca gaaagctttg 35760
atgaacagat gacaaacatc tgaaaccccc tccgcactgt tacccagtgt gtatataatg 35820
```

6865

```
acttgttata gctcagtgtg cccttgaatc catacagttt cttaaaagac aataaaatct   35880
tattaataaa gttaatgtaa cttctaagtt ctagaaaatg ctgattctgt ctgccccatt   35940
caattggggg ctactaattg atttgttgct tggatttcct gagaatttct ctatttgtag   36000
gaggggtttt ttcttttac ggtctgttga tgacaattac tttatgggtg tgatgcaccg   36060
atggtagcca aggaatctgt tggggaagtt cggaaagaaa ccttttcttt cttttattca   36120
gtttaaagta aactttatcc tggatgttta gaatcaacat taagagttat attatggtgt   36180
tcagagatta agctgacttg gatacaatat tttcttttga aaatgaattt tcttttttcat   36240
ttgtgatttt taaaaaatgt tgcaccagtt atgcttcatg catcgttaca tcttcatcag   36300
gttaatgtaa tgtctagttc ctttgcaata aatatattgc tgcagctttc tt           36352
```

<210> 9252
<211> 7513
<212> DNA
<213> Homo sapiens

<400> 9252
```
aggtttcatc gtccataacg aagagtgaga ctatttggaa acagagactg atcatctttg     60
ggggaagccc tgcttcctga aaacctgata ttgcactggg atttgaatgt gtgtgtttcc    120
gtttaacttg tggtgaagga agtgtgtgac tcagcttggc tgggaagtgc tcctcacctg    180
tgtggcccag atggctccaa caagcaaaag gaaggatgca gtgactcttg ctgcccagaa    240
tgcacagcga tggtaagaga caccgtggat attcttcatc agaagcttta atcaaagaag    300
atgagcagaa gacaatcact ggctccctgt taccagaaag ccaaattta taatgcgggt    360
gaaagaaaaa tatagattaa aattgctggg cactgaaaag gggtgggagt tggaaatcag    420
aaagaaagag aaatatttca ttatgttaat gaagaaaaga gaaaattgaa gcataaatgt    480
attttttgaag tagttattcg gtagctgaga acttattaag ggatttagga atttaacctc    540
ctgatgtgga ttcctcaaag acttgatcgg agaatactct tgtttcacca ttatgttggt    600
acagtatagt accattattt tatgttgtgc cagtgaatcc agttgccaga aataagtctg    660
aatgttttca tgcatctttt tcttaaatgc aagagcttct actgactctt aacaagcatg    720
cttacccaaa ttttgttgca tgcttttaag tagcattagc tatgcacact tgacattttt    780
aaatatccct ttcctagtgt accagccttc acaggataag aggactggga ataaagtcag    840
atgtaatgtg accctagaaa actgtagcaa gcttcagaaa taaatctttt gatctttccc    900
tatcttgatt agatccaaag tcaaagcaac catacttcac ctagagaaga cagtattggc    960
aatcatgaca cctgtaataa aaacttgaat ccaaagtcaa aacttaagca agatacaaat   1020
gtgctgcctg cagttagtcc tgcatgggaa taaggactag ttattttttt agtgctgcat   1080
ttttttaaag ttggattgct gctatttaaa aaaaaaaaaa ggacacagat caaaaaaaca   1140
cccaaaggct taacagaaca tggaaagttc ccactaagtt gtgtgtgagg aaatcctcat   1200
cttgtatttt aagaatctgc agatggcatc catagataca gtacagtatt tactgtcaat   1260
gcaaagaat cagtgaggtt aaagtagtgg aagttttccc tatgagccta cagtctgtat   1320
tgtttacatt aagaaactct ctattattgt gttgctattt tccatggagt cacaggcaca   1380
ctatgacttc tgctcccaaa tacatatgac catatgtaaa taccaccttg catttcattg   1440
ttcttcacaa gtgctttgtg ccccttaat taaaaacaca tgaaatgaat aacaaaacaa   1500
gacccaaata gagtttattt tattctcaga gtttggacta caattttcta agatgtttct   1560
ggttcaagac tgtcattttc tatttcaacc gaaaagtaag catttaaccc ggtgaataaa   1620
tgtagatcct gccattcatt ggtatttaa agaaccactt gaaatcggat cattttattt   1680
aaaaataaaa aatgttaatg ccagttggcc tactataaa agccaggacc atgttagaat   1740
taggaaaagt aaccagcatt actgcacctc ttgttagact ctgtgcatta ataaaacaca   1800
cctagagtct gttgtcattt cactaatagg ataagacaaa ttttttgctt tgaaaaaatt   1860
tttctgcatg cccaggtgtc tgtctctggc tgaggttttg tctatttac agtgtttcaa   1920
tccagccata aaaattaact tgtgattttt ttttcccaa agtcatgctt ttccttaatt   1980
atattttat tttattattt tagtgtcttg agaaaaatac caagagatat aatgtttctt   2040
ttaattgtct atgcttaatc atctttaaac acttttaaa tttctaacca caagacctct   2100
ctataatggt aaatgtaaga catcaccatt ttatcactca aagtatgtta ttgaaagttt   2160
ctatttggtt gataaaagga acaattttt cccactttg atgcctgtga tgcaattttt   2220
tattgcctac aatgagatac acttagtaca aaaatgaaa atctggtatt tcaaaattgc   2280
atttcttgta taataggtca gatttattaa ctactcatac tttttcttta cactaatcga   2340
tacatttaga aaaattttc taagttagag acaagtttaa agtaaaaaa aaaaaaaat   2400
tagccactgc tagtctactg tttaggtaat cggaatcacc aattatttta ttagaatgat   2460
ggcttgagta aaaagctgtg gaaagaatta aaggattatg agctaagctg tattttgcag   2520
aatatggttc tattttagta gagcagagat gagacatatc cccaccggcc acccagccag   2580
aggtctccta cctgggggcc ctaaagggat gcagaggtct ggcccaccct ccgtgcatag   2640
```

```
gcacctctgt ccaccaccag cgtttcagca atccaaccag taagcatatg ctgtatagga  2700
aaaataaaag tgtgtgggaa ttggatttct tttgttgtaa cacaattcca ggttttttggc 2760
tatttaaagt ttgacattag gctgacatcg aggaagtaag tgggttttcc tgagttccca  2820
agatatgatt aaggaagaaa acaaacccat ctccaggaag atcccaggca ggaaagaact  2880
agacagatgt agaaaccaaa gtgaccattt tagtttttttt attggagaat aaaacattaa  2940
tattagggta ttaagaagat gctcagcaag cttgatcaga atcttcatgg tcattaccaa  3000
tcagtctgac aaaatagttc tctggtagtc agcattcatt taaggcagct tgcctgataa  3060
tttcctgtgt tatgtgaagt gtcttgcact ttcacatgtt agctataatt ccttaaatta  3120
cttaactgaa atctgtaata gagaaccatt ttggcatttg aacagctatt ttacatggag  3180
aaaaagcaaa cacatctgtt tgctttaccc agaaaaactg actttctggt ttcatcttca  3240
tattgtttag tagcataatg agagtagtcc tttatctttc tctaatgtta gtaaatatat  3300
tctgttagta ggaagttctg aaattgaagg gaaaatatat ttaaggaaat aaaggaattc  3360
aatacaccct tcaaaagtca ccaaatactg aaaataagag atgagtcctt aaaacctgag  3420
tcaaaaaagg tccagtttta cagcctgcaa ttaattcagg gctgcgttgg cattaaaaaa  3480
gaaaatatat atatatatat atatatatat atatatatat atatatatgt atattatata  3540
tacagtagct tacacttaaa agaggaaaaa tttgcattaa cattgcatat tctgatatgt  3600
accatattaa cacataacag gcattttatt tatgcttcat agaatcagac agacacaact  3660
ttcaaaaatc ttactgtatt cacaatagaa aagggtagtc ttgtctacca cagaggagta  3720
tgtccacact taataatgaa aactttcttc ctttcctgcc caaaaatttc ttcagtctgt  3780
tattattttt aagtgcccct tgctgcaaat ttcaaacaga gcaagaaatc ttcctcagag  3840
taggtggtat gaaattaaac tagtacaata tatatgaatt catgtcattt acccctgagt  3900
atggtagaat tgttaaagca ttcttaaatt ccaattatat gaagcctatc attactagga  3960
aaagtatatt ctttgggata agaattaatt tcttcacact attagagcat gttgtgagta  4020
gtaaggaact acttagatgc aatttattta cagaattgtc ccttgacctc ttgaaatggc  4080
tagatctttc actactgtgt aggtagtctc tacttactgg taggatagat tacattgctt  4140
tactggacaa agcagaatga acttatataa ctaaaatatg tcctatattg gctgggtgcg  4200
gtggcttaca cctgtaatac cagcactttg ggaggccaag gtgggtggat cagttgaggt  4260
caggagttcg agaccagcct ggccaacatg gtgaaaccct gtctctactg aaaatacaaa  4320
aaaaaaaaag tatctgggca tggtggcttg tgcctgtaat cccagctact gggaggctg   4380
aggcagggaa atcgcttaaa cccgggaggt ggaggttgca gtgggcccag atcgtgccac  4440
tccactccag cctgggagac agagcaagac tccatctcaa aataataata atagtaataa  4500
tgaataaaat aaaataaaat atgtcctcca gggaaaagca atgacagagt aatcaccaaa  4560
ttaataggaa catctttcta gagaaagtac atgcccagtt agttcaaacc caggtttcaa  4620
agaagtagca ctgggctcta ctgtaaaggc aggcagtgac caagaggtgg tggggagaga  4680
ggtagagtac cctcaaatca ttcccatttt cacttccaat ttcccttttg taatcattaa  4740
gcttaagcta tgtatggaaa tgcaaagcac cattagcatt tctagaaagc agctggaacc  4800
ttacccacca atgctttttt gaagacagta tcatcccaaa tttaaaaatc ctattgtata  4860
tgttgtaaaa tttctggcaa agaaatggag gatcctgtgg cagctattcc cacctaaagc  4920
caaccctata aggatgggtc attttttagc catgctagga tttactgcac acacaaaaaa  4980
tgtcatttag cttgtcacat tgctagcaca gctgcacata tgagcaaagc actgttggtc  5040
tgtgtttctc agtgggggta ctcttggcat ttggagctgg ataggtcttt gctgtacaga  5100
atcatcccat gcattgccag atgtttaata tcccaggccc ctgctgacta aatgtcagta  5160
gcattctcag tcattgtaaa caccaagaat aaaaagcatt cccccaggtt caaatgccct  5220
ccctgggagg ttggtatcac ctcccctgaa tgccactgtc tactgcattt tgaggacaca  5280
gggagaaaaa gtgcctatcc tcaaacattg tctctgctgc cttgcatttc tttgggccct  5340
gaatggtttt tctcccttca tttttcgagc ctttctctca gtgcagctgt tcttcaggga  5400
ggaggttact gggcagcctt ggccattcag tgggcatggg gacttggcct agtccctata  5460
tatatatact taaagtccct atatatactt aaaggagaga tcatacatga agaaagcttt  5520
tttttttttt tttttttttg ccttacaact tttctttaga accacattat tggtcataat  5580
ccttgttact gtcatgagga ttgttgcatg ggttaaacac aaacacagac tagcaatgca  5640
cttgaacaaa cctggtggtc tttggaaata aatcaccatt agatttcacc tggttatgct  5700
gcatcccata agttccaaat gaatcacctg cttatcctat taacgaagca tttaattcac  5760
acacaaatgc ttgaatttcc cctgtataaa tgtagtcatg cgattcaact tttctaataa  5820
gatttgtgaa tgctgcatca tgatgaaaat gtggattaac tgtgggttgc atgcctgttg  5880
ttcatacttc agtgatggtc acacacaaaa caagatgagt tttacttagg tgaaacatta  5940
ttaaactgta ctaacaatac agaaacatat tctctttgtc gcttttttatc accaaaactg  6000
aatggcaaat atgtcttgac attacttgga tgaactgtgg ctagcaaaat ggaattaact  6060
tagccactat aatttttttaa aacattaaag tttctaaatt gttttttgggg ccgagtaacg  6120
cagagtcaat aaaggtggtt atattgtaag ctttttagatg gtgcttaaga attcttatct  6180
ttttaaatag cagtattttt tttttaagaa taaattgtaa ggagcaaata aggcagaatg  6240
ccactctacc ctcaggtcaa ttttatggta tatgaaaatg ccagtaatat ttgtgccact  6300
```

                                        6867

```
tgccaactcg  ggggaggagg  ggctttttccc  ttactggata  cttttgttat  agtttgacta       6360
tgtcattatg  ttgtttagag  agcctccaca  atgagaagtt  gccactgcag  ggctaactcg       6420
ccttcagaaa  taatcagaat  gattcaaggg  tcaaaccact  ttcatccctt  aaaaatatagg       6480
gactaatatt  tctttttctt  tttttttaaaa  aaaacatttc  ttctgtggct  tagaaatgtg       6540·
ccagtgtgtt  caaaacattt  acaccaattt  caccagattt  aggacctatt  aaaaattcaa       6600
acaagtttct  tttttttttt  tttttttctg  tgtaacaggg  atttttaaat  aacggactat       6660
atgcattctt  ttgttatttc  acacttcagt  taaagtgata  acaatggtaa  actgtgatca       6720
ttatcagact  gactgaatgc  tttctgattt  ccagtgagtg  atctagttct  acgtattaca       6780
caggtgtaat  atctgtgagt  gtaaataact  ggaactgtac  actgattaac  atgacagttt       6840
ctcttttgtt  gttcttatct  gtactgtatt  atagtatgtg  ggtataaata  tctacaagta       6900
tacacacata  tgtacttgta  ttccactatt  gtaacctgaa  agaaagacta  tgtattccct       6960
tttttaattc  cgtactggta  tttgtgttat  ttaaaaagca  aaattctgct  ctatttagtt       7020
gtataatatt  agaggatact  ttgctgtgca  caattccaag  tgccttagaa  cattgtttag       7080
·ctttcctaag  tatatataaa  tgcatatatg  tataaaattg  ggaaaagtta  cctcaataaa       7140
atcattggga  aatccccagt  tttagtttgt  tccagtttct  cttatatttg  gatagtgctc       7200
agccttttta  aatgaaaaaa  gaaaaaagag  taagacaact  tccctaattg  cctgttatttt       7260
cagcttcacc  taagttttta  acacctcttt  gtatgtaagg  tcttgagaca  tgtaaggcct       7320
ggtactttt  atttaaaatg  tctgtctaaa  gaattactgc  tcttaaaaga  aacttccagt       7380
atttttttta  acttgctatc  tttttatgtc  tgaggtattt  gatattgatg  tttttattgc       7440
cattattata  tgtaaacata  aaagatagtc  catttagagt  ttataatata  gaaaataaac       7500
agacttcctc  att                                                            7513


<210> 9253
<211> 152
<212> DNA
<213> Homo sapiens

<400> 9253
aaaaaaataa  aaaaaaaaaa  aaaaaaaaaa  aaaataaaac  aaaaaaaaaa  tataaaaaaa         60
aaaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa  caaaaaaaaa  aaaaaaaaat        120
ataaaaaaaa  aaaaaaaaaa  aaaattaaag  ag                                       152


<210> 9254
<211> 96
<212> DNA
<213> Homo sapiens

<400> 9254
cccgaaaaaa  aaaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa  attaaaaaaa  aaaaaaaaaa         60
acaaacaaaa  ttaaaaaaaa  aataaaaaaa  aaaaat                                    96


<210> 9255
<211> 130
<212> DNA
<213> Homo sapiens

<400> 9255
aaaaaaaaaa  aaaaaaacaa  aaagaaaaaa  aaaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa         60
aagaaaaaat  aaaaaaaaaa  aaataaaaaa  aaaaaaaaaa  aaacaagaaa  gacaaaaaaa        120
aataaaaaga                                                                  130


<210> 9256
<211> 116
<212> DNA
<213> Homo sapiens

<400> 9256
```

```
aaaaaaaata aaaaaaaaaa aaaaaataaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa        60
aaaaaaaaaa aaaaaaaaaa acaacacaaa aaaaaaaaaa aaccaaaaac aaacag           116


<210> 9257
<211> 151
<212> DNA
<213> Homo sapiens

<400> 9257
aaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacaa        60
aaaaaacaaa aaaaaaaaaa aaaaaaaaaa taaataaaaa aaaaagagaa aaaaataaaa       120
ataaagaaat aaataaaaaa aaaaaaaaaa a                                      151


<210> 9258
<211> 202
<212> DNA
<213> Homo sapiens

<400> 9258
aaaaaaaaga aaaaaaaaaa aaaaaataaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa        60
aaaaaaaaaa aaacaaaaaa taaaaaaaaa aagaaaaaaa aaaaaataaa aaaaaaaata       120
aaaaaaaaca aaaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ataaacaaaa       180
aaaaaataaa acaaaaaaaa aa                                                202


<210> 9259
<211> 158
<212> DNA
<213> Homo sapiens

<400> 9259
taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa        60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaata aaaaaaaaaa aaataaaaaa       120
aaaaaaaaaa aataaactaa aaaaaaaaaa taaaaaaa                               158


<210> 9260
<211> 125
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (33)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (90)
```

```
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (117)
<223> n equals a,t,g, or c

<400> 9260
gttgtggaaa aaaaaaaaaa aaaaaaaaaa aanaaaaaaa aaaaaaaana aaaaaaaaaa        60
naaaaaaaaa aaaaaaaaaa aaaaaaaaan naaaaaaaaa aaaaaaaaaa aaaaannaaa       120
aaaaa                                                                   125


<210> 9261
<211> 126
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (10)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (14)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (20)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (107)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (108)
```

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (118)
<223> n equals a,t,g, or c

<400> 9261
gccaaaaann aaanaaaaan aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa   60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaanaaaaa aaaaaannan aaaaaaanaa   120
aaaaaa   126

<210> 9262
<211> 151
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (89)
<223> n equals a,t,g, or c

<400> 9262
aaanaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaanaaaga aaaaaaaaaa   60
aaaaaaaaaa agaaaaaaaa aaaaaaaana aaaaaaaaaa agaaaaaaaa aaaaaaaaaa   120
aaaaaaagaa aaagggaaaa aaaaaaaaaa a   151

<210> 9263
<211> 440
<212> DNA
<213> Homo sapiens

<400> 9263
agtgaacagc atgttcaaaa gcaccgggct acaaaaatgc aaggaatgtt caggaactca   60
caaggaggga aaggaagcca gctggctggc taacaagcat accgtaaaag tagtgccagc   120
aaaagatgga actttaatga ttccaagaca ggcagttgag gcaggacttg gtgactaata   180
ggaaatgctg gatgagggag agaaatgaat tgctaatctg aggtttctag accaaaaata   240
tttttaaaga tagaatatta aataagacaa agtgcaaagg caggttaaca aggaaagctt   300
tgtatagttg tggacatgct tagtatatac ctgtggaaca tctgggggga agcgccctgt   360
gggctttttgg aaattcaagt gtagaaagta gatttggagt cgtcagcagg agatgatgag   420
aggctgaagc taatgaaaaa   440

<210> 9264

```
<211> 118
<212> DNA
<213> Homo sapiens

<400> 9264
ggattacata ctgttgccaa ctgaaggttg gaataaactt gtcagctggt acacattgat        60
ggaaggtcaa gagccaatag cacgaaaggt actgtttaat aataactgac tataaata         118


<210> 9265
<211> 77
<212> DNA
<213> Homo sapiens

<400> 9265
aaataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa        60
ataaaaaaaa aaaaaaa                                                        77


<210> 9266
<211> 7411
<212> DNA
<213> Homo sapiens

<400> 9266
tattggttga ggggggcggg gggattgagg aagacggaaa gccgcgccga gtcgccgggt        60
tacctccggg gtgaaccatg ttgagtcctg ccaacgggga gcagctccac ctggtgaact       120
atgtggagga ctacctggac tccatcgagt ccctgccttt cgacttgcag agaaatgtct       180
cgctgatgcg ggagatcgac gcgaaatacc aaggtacggc cgggtgatgg atgggcgggg       240
gcggccgcct ccttcccggc gggtccgggc gcgccgcgga gccgggccgg tcctgccgtg       300
gaccggagga agcggccggc tccgcagcgg cggccctcgg caggggcagg aacaaaaggt       360
ctggagcgcc tttgattcgc caaggtcctt gtgtgcaaag cccgggacac ggaggaggaa       420
ggaggcgcga gaggtctcgc tgcaaggctg cgcgaccaaa gcgctctttg tagtgaagtg       480
atgaggcggg tgctgcgggg gagggggcgg cgggtccaag ccgcgtcctc taggaggggg       540
tgcatattac ggcgcgagat ggagggatgt gccggcgcct ggggctatag ggcgccgaga       600
cggggctgca ggagaagggc ggctgtgggc cggggtttcc gcggacccgg tgcctcggtc       660
ccgggcaacg ccgttcctct ggcccttctt agtcgccccc cactcagtcc cgaatctgag       720
tgttacataa agtaccgggt agtactccgc tcggggtagg tcggccgccc ccgcccagcc       780
ccctccggcc ctcacttgga gctggacacc gagtaggggc cgactgcgag gggcgacgcc       840
gccggttgta gtttgcggag gacgagggct tttctctgtg tgccgtaggg aagggaaggg       900
aaggggagga gcggaggcgg ggaaggcgcc catctgcgct gcgctcgggg gggcgcgggc       960
agatcgctgg cttggagagg actgtggcag gtgagaggac ctgtgcgtcg ttctctgcag      1020
acctggccgc cccgggtgtc agagagaggt ggcgagttcg tgtccgccgg gaattgttgg      1080
ctgttgggga aactttcctg cgaggtcagt caaggctttg ggggctctgt tttgaatgtg      1140
gatcaccact cggagtttac taatgtttac aaggctgcgc agtagggaaa cggaagagtt      1200
gggtgggggc aaaaaaaaaa attgaccgct atccccgaaa gtactagacg cctctgccgg      1260
gaaggcgccc ctgcgcgttc tatccgagac gtagcttcgc agcgaatttt ataggaactt      1320
cattagcata ttatggaacg tcccgcctca gcccccagt agttggctgt gatgtccttc        1380
gtggaatgtc cttatcattc ccctgcggaa cgattggtcg ctgaggcgga tgaaggcggg      1440
cctagcgcaa taactggtat gggtctgtgt ttccgctgtc ttctttttc tttttcgggg       1500
aggagcgggg tggagggtgg acgagttgat ttgaacgtct tcgggtcgct cggcctccag      1560
ccttggattg gttcttctcg ctgctggggc gggccgtgct cttccgccct gcggtgtggt      1620
tggttctcct cctggcctcc gccctccaaa tcggcgattc ccataggcgg cggctctcgg      1680
ggtgcggggc gagtctcccg ctggcctcct ccccattggc tggaggcctg gcgggtgtcg      1740
cccctgcccc tctccccgct cagcccggcc actttcgggc gcggatttat agcagtagca      1800
gtgatcccgg gcctgtgggc tcggggccgg ggctgcagtt cggaccgcct cccgcgaccc      1860
gcggggccgg ctcggagaca gtttcaggcc gcatctctgc tgacccgagg gtggggccgc      1920
gcgtggccgt ggaaacgtga gtgactgggg ctgcgtccac gaggggacc ctcggcgcag        1980
aaacttttct ggaaggtgct gtcctcgggc cggacgggcc ccgtggggtg accctggggc      2040
tccggacgga aggaaggcag gggctgagac cactttgatc gttcgacgat agaaaaaagt      2100
agcgcggggc ggggtgcagg gttccagctg tccagacagc aaagttcatg gagccacttt      2160
```

```
gtcctcctgt cgttgctggg gagagcctgg cttgctgctt gcttcatgtt cacctagggt   2220
gatgaacttt ttggcttcag gaaagatcac agtcctgccc ccccgggagt actggagcgg   2280
cgcagctggg agcgccgaga agcgagcgaa tctgtcgcaa gggtcacagc tccttggact   2340
tcggtgtaaa tgctgagctc tgccgcgtag ttctgaaaga cttccacaga cctactctgt   2400
aggaagtcaa acgtcttttg cttagtaggc atcagttgta tgttaattca taaacttgga   2460
ttataattag tttgtcgatt taaaatggtg tttgaggttg cttgaattat ttttcaaaca   2520
ttatcataaa aatacccacc cacccctgg gaagttcgct tcataaagaa cttcagtgca   2580
acccgtatgt aaaattaaaa tacatttaaa ataattggac aaaccaattt aaatgttgct   2640
acaaccccat ttaatctgta aattgcatgt gctgctgctt tccatggtaa tgttggtgtg   2700
gaatatgttt ggaaaaaagg cagtagtgtc tgaagctgag ttgctggcat tgaaaaagca   2760
gagtgtctgg aaggatggct tcctatttag cagtggtgtt gttcctgttt ataaatattt   2820
gtacttagtg gctttgttga taaaatactt tgcttggagt atcaaagaaa tattaggtaa   2880
cagaaatact tcttggtaat tttgcgatgg gatatctgtt tctcttgccc acaaattagg   2940
cttcacctgg atggaagctt gcttgtgatg taaaataact tctgtgttat taaatttaa   3000
atttatatga tacagttttc tgtgaaatga caatattgtc tttagaactt tgattactga   3060
tgaaaagaag tgataccatt ttgtaaccct aaatccattt aaaaataaat ggtacacata   3120
ttttaacatt atgataaata agttgaataa attggtatta cttggatacg ttgaacacag   3180
ctatttattt ttataattaa ttactatatg agactagggc tttcctcctg gtggcaggca   3240
gcctgcattg ttcctctagg agtcttcaaa gctgtcttta gtttgagaat atactctgga   3300
aaatattacc atttagagaa gcttcagcgt tggcctgagt tcttatgttt actctagtgt   3360
taggtatatg tcttataact atttggagat aagatctgga aaggaagggg gtaacatttt   3420
agacaatccc tcccactctc agcccctccc ctagtttaca agtagtattg ttggccaggc   3480
acggtggctc actcctgtaa tcccagcacc atgggagacc gaggcgggcg gatcacctga   3540
ggtcgagagt tgggagacca gcctgtccaa catggagaca ccctgtctct actgaaaata   3600
cagaattagc cgggcgtggt attacatgcc tgtaatccca gctactcggg aggctgaggc   3660
aggagaatcg cttgaacctg ggaggcaggt tgcagtgagc tgagatcgcg ccattgcact   3720
ccagcctggg caacaagagt gaaactccgt ttcaacaaca acaaaaaaag gtagtattgt   3780
tgccttgttt aaagagactg caaaaaggtt ttaggagaat aatctggtac tgtttaattt   3840
aatggttact gtttgaggaa aaagaactct ggaatttctg tgtatttaag tagccttttt   3900
agcaaggctg tttacttcaa ctagattttt taatagcttt tgtttcttga gaaattgcct   3960
aattacactt gccaaattac actttaaaat catatacact gtcctctaac atgcccagga   4020
aggtttacat ttaaatactg aagaggtttt cttttgtttt tgataacatt ttaaagtcca   4080
ttgactttaa cagatgtgaa gatgtttttg tttaagcagt agatgcaaaa gtaaaaccta   4140
ccagcttcgc tttaaagcaa ggctagtgca ttcactgcag ttaaaaaata ataataatag   4200
cccatcacag tggtgcttct gtagtcccag ctactcagga ggctgaggtg ggagggtccc   4260
ttgaacctgg gaggtcgagg ctgcagtgag ccgagattgc accactgcac tccagcctgg   4320
gcgacagaga cggaccttgt ctccaaaata ataacaagtc gtaataataa taaagcaaag   4380
ctaggttttc tggattattg tggcagaact gttcttgctg tcactaatac agagggataa   4440
catgctagaa taaatgtggg gactgaaact gaggacctaa gtcacaagt atcctggacc   4500
tttactgtta acccggttct ttaaatcata gagagctatt atataaattt atacacattc   4560
tctcatttaa cagggtattc tagatgttgg tatattaaaa taaagaaaat aaagaccttt   4620
tttatttgaa atattcaaat aatttataat atattttatt aatgtttgta tattgtgtat   4680
aaatgtaata aataccatgt ttatataatg ttatatgtat attaataatt gtattcaaat   4740
agaaacattt gagtaaaaat gatggcagta tagacatagt cattaataga aagtattaat   4800
aaatgttggg tcccgagcac tgcacctcat ttaaacgttt cctcttaatg gcttcgggcg   4860
ttgtcacccg tgcgtgcctg ggaactgttc tcaggttccc tggggtggct ggagcggctc   4920
ctgccgctgt ggaagctggg ccggcatttg tgttgtgttg tgttgtgttg tgttgtgttg   4980
tggttagcac aggaacagat aggcccggga gagcctgtgg ctggtgggct ttgttctggg   5040
caagccgtgc gctggcccct aggctccctg ccagccctct ccgtagaccc gtccggggcc   5100
gtgtgggttg tcccggtgtc ctgctcgcga gtgacgcctg tccttcttgc ccccagagat   5160
catgaaggag ctagacgagt gctacgagcg cttcagtcgc gagacagacg gggcgcagaa   5220
gcggggatg ctgcactgtg tgcagcgcgc gctgatccgc agccaggagc tgggcgacga   5280
gaagatccag atcgtgagcc agatggtgga gctggtggag aaccgcacgc ggcaggtgga   5340
cagccacgtg gagctgttcg aggcgcagca ggagctgggc gacacagcgg gcaacagcgg   5400
caaggctggc gcggacaggc ccaaaggcga ggcggcagcg caggctgaca agcccaacag   5460
caagcgctca cggcggcagc gcaacaacga gaaccgtgag aacgcgtcca gcaaccacga   5520
ccacgacgac ggcgcctcgg gcacacccaa ggagaagaag gccaagacct ccaagaagaa   5580
gaagcgctcc aaggccaagg cggagcgaga ggcgtcccct gccgacctcc ccatcgaccc   5640
caacgaaccc acgtactgtc tgtgcaacca ggtctcctat ggggagatga tcggctgcga   5700
caacgacgag tgccccatcg agtggttcca cttctcgtgc gtggggctca atcataaacc   5760
caagggcaag tggtactgtc ccaagtgccg gggggagaac taaaagacca tggacaaagc   5820
```

                                    6873

```
cctggagaaa tccaaaaaag agagggctta caacaggtag tttgtggaca ggcgcctggt    5880
gtgaggagga caaaataaac cgtgtattta ttacattgct gcctttgttg aggtgcaagg    5940
agtgtaaaat gtatattttt aaagaatgtt agtaaaggaa ccattccttt catagggatg    6000
gcagtgattc tgtttgcctt ttgttttcat tggtacacgt gtaacaagaa agtggtctgt    6060
ggatcagcat tttagaaact acaaatatag gtttgattca acacttaagt ctcagactga    6120
tttcttgcgg gaggaggggg actaaactca acctaacaca ttaaatgtgg aaggaaaata    6180
tttcatttag ctttttttatt ttaatacaag taatattatt actttatgaa caattttttt    6240
taattggcca tgtcgccaaa aatacagcct atagtaaatg tgtttcttgc tgccatgatg    6300
tatatccata taacaattca gtaacaaagg tttaaagttt gaagattatt ttttaaaaag    6360
gtaaatggtt aaattttaca tgacagatat tttatctatt ggcctgttcc ccaaatggcc    6420
atttaaaat gcttgggtac acttctctta agtggtctag tcaaggaacc tcaagtcatg    6480
cttttgctat caccaatcat agtgtaccca tctttaattt atatcaggtg tataaatgta    6540
catttccaaa tgaacttgca cttgttatat tataattgga agtgcagtca gcagatgctg    6600
ttgtgaagct aatgtcacaa ttatgtgcaa aggtgtgctt cctgctgtat gtgagctgta    6660
aaaatgttac gtgaagaaat aaatgaaact tggccagttt gttcctctag tagtatattt    6720
aattttgaca taagtaactt ttaaaatttg tcttaaaaat ttatacacca gcaatttaga    6780
caaagcctta agcaaatttt gtattattgt tctcacttat tattaataat gaagtagaag    6840
ttacttaatt gccagcaaat aaatacgtgt caaaaaagaa tctgtattca gaccctgggt    6900
caggaaatta ctgcccactt gtcaagttca gcccaccatc tgtttgaaga ttatatgaag    6960
tttaaattct agtgtccata aataaagttt cagcggaaca cagccgtgct tatgtgcgta    7020
tgtattgtct gactgctttt gcaaacggc agagttcaat agttgcacct gaaaccattt    7080
gacttgacaa gccaaaacta ttttctggcc ctctgcagaa agggtttgct gacctctgat    7140
ttagactagc atctaacatt gatttgccca catattgaaa gggtcagtgg agttttcatt    7200
tattatttt tatttttttg agattgagtt ccaggctgga gtgcaatagc gcactcttgg    7260
ctcaccgcaa cctccgcctc ccaggttcaa gcgattgtcc tgcctcagcc tccccagtag    7320
ctaggattac aggcatgcac caccacgcct ggctaatttt gtattttcag tagagacgcg    7380
gtttctccat gttggtcatg gctggtctcg c                                  7411


<210> 9267
<211> 8487
<212> DNA
<213> Homo sapiens

<400> 9267
gcggccgcag ctcaaaggac accgagaggg tgccagtgcg catgcgccgc cacttccgcc      60
cgtgcccggc cctcccccttc cttccgcctc ccggaggact tgggtttcta gtagtaagag     120
tccggggggc attactcacg gtctccccgc ctcctcttca tcgtgattgg gctgtcaaag     180
tgatgttggc aagtagattg gctactgcgg ttgccagttc tgtttcgggc cctacttata     240
ctgctctgtg gggcggggac gaagagtcag gggctgagga gcgagttgcg gtagttgctg     300
tgtaccatgg tctcggaggt ttctgtcccg cggcccgtta ggtcctggtc gggttttcag     360
cgaagcaggc cgctcccctg cgtttcccag cgggcgtgct gtgccgccca acaggctctg     420
cctccaagtg ccaaaaactc ctagtaaagt ttgcgcctcg cccgccgtcc acaccccagc     480
ggccctgacg ctgtcccctc cgcgaccctc gcctctggaa aaagtgacag gcaaggccac     540
gcccccgcga gggccggcct ggagcccgca gcccccaggg cctgggacgg tgagggcgt     600
gaatgcggcg ggggcgggg ccgttgccgg gggagggggc cggggcgcat gcgcgctgcg     660
cagcgggggct gaatgtttcc caagtgtttg aaactggtat ttgggttttc cacgttggac     720
aagtgcggct cggcggccag cggagcgcgc cccttcccgc tgcccgctcc gctcctctct     780
tctacccagc ccagtgggcg agtgggcagc ggcggccgcg cgctgggcc ctctcccgcc     840
ggtgtgtgcg cgctcgtacg cgcggccccc ggcgccagcc ccgccgcctg agagggggcc     900
tgcgccgccg gccgggggcgt gcgcccggga ccaccgcca ccgcggcccg cgccctcagg     960
cgctggggtc cccgcggacc cggaggcggc ggacgggctc ggcagatgta gccgccgggc    1020
cgaagcagga gccggcgggg gggcgccggg agagcgaggg ctttgcattt tgcagtgcta    1080
tttttttgagg ggggcggggg gtggaggaag cggaaagccg cgccgagtcg ccggggacct    1140
ccggggtgaa ccatgttgag tcctgccaac ggggagccag ctccacctgg tgaactatgt    1200
ggaggactac ctggactcca tcgagtccct gcctttcgac ttgcagagaa atgtctcgct    1260
gatgcgggag atcgacgcga ataccaagg tacggccggg tgatggatgg cggggggcgg    1320
ccgcctcctt cccggcgggt ccgggcgcgc cgcggagccg gccggtcct gccgtggacc    1380
ggaggaagcg gccggctccg cagcggcggc cctcggcagg ggcaggaaca aaaggtctgg    1440
agcgcctttg attcgccaag gtccttgtgt gcaaagcccg ggacacggag gaggaaggag    1500
gcgcgagagg tctcgctgca aggctgcgcg accaaagcgc tctttgtagt gaagtgatga    1560
```

```
ggcgggtgct gcggggggagg gggcggcggg tccaagccgc gtcctctagg aggggggtgca  1620
gattacggcg cgagatggag ggatgtgccg gcgcctgggg ctataggggcg ccgagacggg  1680
gctgcaggag gagggcggct gtgggccggg gttcccgcgg acccggtgcc tcggtcccgg  1740
gcaacgccgt tcctctggcc cttcttcgtc gccccccact cagtcccgaa tctgagtgtt  1800
acataaagta ccgggtagta ctccgctcgg ggtaggtcgg ccgccccgc ccagccccct  1860
ccggccctca cttggagctg gacaccgagt aggggccgac tgcgaggggc gacgccgccg  1920
gttgtagttt gcggaggacg agggcttttc tctgtgtgcc gtagggaagg gaagggaagg  1980
ggaggagcgg aggcggggaa ggcgcccatc tgcgctgcgc tcgggggggc gcggcagat  2040
cgctggcttg gagaggactg tggcaggtga gaggacctgt gcgtcgttct ctgcagacct  2100
ggccgccccg ggtgtcagag agaggtggcg agttcgtgtc cgccgggaat tgttggctgt  2160
tggggaaact ttcctgcgag gtcagtcaag gctttggggg ctctgttttg aatgtggatc  2220
accactcgga gtttactaat gtttacaagg ctgcgcagta gggaaacgga agagttgggt  2280
gggggcaaaa aaaaaaattg accgctatcc ccgaaagtac tagacgcctc tgccgggaag  2340
gcgcccctgc gcgttctatc cgagacgtag cttcgcagcg aattttatag gaacttcatt  2400
agcatattat ggaacgtccc gcctcagccc cccagtagtt ggctgtgatg tccttcgtgg  2460
aatgtcctta tcattcccct gcggaacgat tggtcgctga ggcggatgaa ggcgggccta  2520
gcgcaataac tggtatgggt ctgtgtttcc gctgtcttct tttttctttt tcggggagga  2580
gcggggtgga gggtggacga gttgatttga acgtcttcgg gtcgctcggc ctccagcctt  2640
ggattggttc ttctcgctgc tggggcgggc cgtgctcttc cgccctgcgg tgtggttggt  2700
tctcctcctg gcctccgccc tccaaatcgg cgattcccat aggcggcggc tctcgggggtg  2760
cggggcgagt ctcccgctgg cctcctcccc attggctgga ggcctggcgg gtgtcgcccc  2820
tgcccctctc cccgctcagc ccggccactt tcgggcgcgg atttatagca gtagcagtga  2880
tcccgggcct gtgggctcgg ggccgggggct gcagttcgga ccgcctcccg cgacccgcgg  2940
ggccggctcg gagacagttt caggccgcat ctctgctgac ccgagggtgg ggccgcgcgt  3000
ggccgtggaa acgtgagtga ctggggctgc gtccacgagg gggaccctcg gcgcagaaac  3060
ttttctggaa ggtgctgtcc tcgggccgga cgggccccgt ggggtgaccc tggggctccg  3120
gacggaagga aggcagggggc tgagaccact ttgatcgttc gacgatagaa aaaagtagcg  3180
cggggcggggg tgcagggttc cagctgtcca gacagcaaag ttcatggagc cactttgtcc  3240
tcctgtcgtt gctggggaga gcctggcttg ctgcttgctt catgttcacc tagggtgatg  3300
aactttttgg cttcaggaaa gatcacagtc ctgcccccccc gggagtactg gagcggcgca  3360
gctgggagcg ccgagaagcg agcgaatctg tcgcaagggt cacagctcct tggacttcgg  3420
tgtaaatgct gagctctgcc gcgtagttct gaaagacttc cacagaccta ctctgtagga  3480
agtcaaacgt cttttgctta gtaggcatca gttgtatgtt aattcataaa cttggattat  3540
aattagtttg tcgatttaaa atggtgtttg aggttgcttg aattattttt caaacattat  3600
cataaaaata cccacccacc ccctgggaag ttcgcttcat aaagaacttc agtgcaaccc  3660
gtatgtaaaa ttaaaataca tttaaaataa ttggacaaac caatttaaat gttgctacaa  3720
ccccatttaa tctgtaaatt gcatgtgctg ctgctttcca tggtaatgtt ggtgtggaat  3780
atgtttggaa aaaaggcagt agtgtctgaa gctgagttgc tggcattgaa aaagcagagt  3840
gtctggaagg atggcttcct atttagcagt ggtgttgttc ctgtttataa atatttgtac  3900
ttagtggctt tgttgataaa atactttgct tggagtatca aagaaatatt aggtaacaga  3960
aatacttctt ggtaattttg cgatgggata tctgtttctc ttgcccacaa attaggcttc  4020
acctggatgg aagcttgctt gtgatgtaaa ataacttctg tgttattaaa ttttaaattt  4080
atatgataca gttttctgtg aaatgacaat attgtcttta gaactttgat tactgatgaa  4140
aagaagtgat accattttgt aaccctaaat ccatttaaaa ataaatggta cacatatttt  4200
aacattatga taaataagtt gaataaattg gtattacttg gatacgttga acacagctat  4260
ttatttttat aattaattac tatatgagac tagggctttc ctcctggtgg caggcagcct  4320
gcattgttcc tctaggagtc ttcaaagctg tctttagttt gagaatatac tctggaaaat  4380
attaccattt agagaagctt cagcgttggc ctgagttctt atgtttactc tagtgttagg  4440
tatatgtctt ataactattt ggagataaga tctggaaagg aaggggggtaa cattttagac  4500
aatccctccc actctcagcc cctcccctag tttacaagta gtattgttgg ccaggcacgg  4560
tggctcactc ctgtaatccc agcaccatgg gagaccgagg cgggcggatc acctgaggtc  4620
gagagttggg agaccagcct gtccaacatg gagacaccct gtctctactg aaaatacaga  4680
attagccggg cgtggtatta catgcctgta atcccagcta ctcgggaggc tgaggcagga  4740
gaatcgcttg aacctgggag gcaggttgca gtgagctgag atcgcgccat tgcactccag  4800
cctgggcaac aagagtgaaa ctccgtttca acaacaacaa aaaaaggtag tattgttgcc  4860
ttgtttaaag agactgcaaa aaggttttag gagaataatc tggtactgtt taatttaatg  4920
gttactgttt gaggaaaaag aactctggaa tttctgtgta tttaagtagc ctttttagca  4980
aggctgttta cttcaactag attttttaat agcttttgtt tcttgagaaa ttgcctaatt  5040
acacttgcca aattacactt taaaatcata tacactgtcc tctaacatgc ccaggaaggt  5100
ttacatttaa atactgaaga ggttttcttt tgttttttgat aacattttaa agtccattga  5160
ctttaacaga tgtgaagatg ttttttgttta agcagtagat gcaaaagtaa aacctaccag  5220
```

6875

```
cttcgcttta aagcaaggct agtgcattca ctgcagttaa aaaataataa taatagccca    5280
tcacagtggt gcttctgtag tcccagctac tcaggaggct gaggtgggag ggtcccttga    5340
acctgggagg tcgaggctgc agtgagccga gattgcacca ctgcactcca gcctgggcga    5400
cagagacgga ccttgtctcc aaaataataa caagtcgtaa taataataaa gcaaagctag    5460
gttttctgga ttattgtggc agaactgttc ttgctgtcac taatacagag ggataacatg    5520
ctagaataaa tgtgggggact gaaactgagg acctaagtca caaagtatcc tggaccttta    5580
ctgttaaccc ggttctttaa atcatagaga gctattatat aaatttatac acattctctc    5640
atttaacagg gtattctaga tgttggtata ttaaaataaa gaaataaag accttttta     5700
tttgaaatat tcaaataatt tataatatat tttattaatg tttgtatatt gtgtataaat    5760
gtaataaata ccatgtttat ataatgttat atgtatatta ataattgtat tcaaatagaa    5820
acatttgagt aaaaatgatg gcagtataga catagtcatt aatagaaagt attaataaat    5880
gttgggtccc gagcactgca cctcatttaa acgtttcctc ttaatggctt cgggcgttgt    5940
cacccgtgcg tgcctgggaa ctgttctcag gttccctggg gtggctggag cggctcctgc    6000
cgctgtggaa gctgggccgg catttgtgtt gtgttgtgtt gtgttgtggt    6060
tagcacagga acagataggc ccgggagagc ctgtggctgg tgggctttgt tctgggcaag    6120
ccgtgcgctg gcccctaggc tccctgccag ccctctccgt agacccgtcc ggggccgtgt    6180
gggttgtccc ggtgtcctgc tcgcgagtga cgcctgtcct tcttgccccc agagatcctg    6240
aaggagctag acgagtgcta cgagcgcttc agtcgcgaga cagacggggc gcagaagcgg    6300
cggatgctgc actgtgtgca gcgcgcgctg atccgcagcc aggagctggg cgacgagaag    6360
atccagatcg tgagccagat ggtggagctg gtggagaacc gcacgcggca ggtggacagc    6420
cacgtggagc tgttcgaggc gcagcaggag ctgggcgaca cagcgggcaa cagcggcaag    6480
gctggcgcgg acaggcccaa aggcgaggcg gcagcgcagg ctgacaagcc caacagcaag    6540
cgctcacggc ggcagcgcaa caacgagaac cgtgagaacg cgtccagcaa ccacgaccac    6600
gacgacggcg cctcgggcac acccaaggag aagaaggcca agacctccaa gaagaagaag    6660
cgctccaagg ccaaggcgga gcgagaggcg tccctgccg acctccccat cgaccccaac    6720
gaacccacgt actgtctgtg caaccaggtc tcctatgggg agatgatcgg ctgcgacaac    6780
gacgagtgcc ccatcgagtg gttccacttc tcgtgcgtgg ggctcaatca taaacccaag    6840
ggcaagtggt actgtcccaa gtgccggggg gagaacgaga agaccatgga caaagccctg    6900
gagaaatcca aaaagagag ggcttacaac aggtagtttg tggacaggcg cctggtgtga    6960
ggaggacaaa ataaaccgtg tatttattac attgctgcct ttgttgaggt gcaaggagtg    7020
taaaatgtat attttaaag aatgttagta aaggaaccat tcctttcata gggatggcag    7080
tgattctgtt tgccttttgt tttcattggt acacgtgtaa caagaaagtg gtctgtggat    7140
cagcatttta gaaactacaa atataggttt gattcaacac ttaagtctca gactgatttc    7200
ttgcgggagg aggggggacta aactcaacct aacacattaa atgtggaagg aaaatatttc    7260
atttagcttt tttattttaa tacaagtaat attattactt tatgaacaat tttttttaat    7320
tggccatgtc gccaaaaata cagcctatag taaatgtgtt tcttgctgcc atgatgtata    7380
tccatataac aattcagtaa caaaggttta aagtttgaag attattttt aaaaaggtaa    7440
atggttaaat tttacatgac agatatttta tctattggcc tgttccccaa atggccattt    7500
taaaatgctt gggtacactt ctcttaagtg gtctagtcaa ggaacctcaa gtcatgcttt    7560
tgctatcacc aatcatagtg tacccatctt taatttatat caggtgtata aatgtacatt    7620
tccaaatgaa cttgcacttg ttatattata attggaagtg cagtcagcag atgctgttgt    7680
gaagctaatg tcacaattat gtgcaaaggt gtgcttcctg ctgtatgtga gctgtaaaaa    7740
tgttacgtga agaaataaat gaaacttggc cagtttgttc ctctagtagt atatttaatt    7800
ttgacataag taacttttaa aatttgtctt aaaaatttat acaccagcaa tttagacaaa    7860
gccttaagca aattttgtat tattgttctc acttattatt aataatgaag tagaagttac    7920
ttaattgcca gcaaataaat acgtgtcaaa aaagaatctg tattcagacc ctgggtcagg    7980
aaattactgc ccacttgtca agttcagccc accatctgtt tgaagattat atgaagttta    8040
aattctagtg tccataaata aagtttcagc ggaacacagc cgtgcttatg tgcgtatgta    8100
ttgtctgact gctttgcaa aacggcagag ttcaatagtt gcacctgaaa ccatttgact    8160
tgacaagcca aaactatttt ctggccctct gcagaaaggg tttgctgacc tctgatttag    8220
actagcatct aacattgatt tgcccacata ttgaaagggt cagtggagtt ttcatttatt    8280
attttttatt tttttgagat tgagttccag gctggagtgc aatagcgcaa tcttggctca    8340
ccgcaaccctc cgcctcccag gttcaagcga ttgtcctgcc tcagcctccc cagtagctag    8400
gattacaggc atgcaccacc acgcctggct aattttgtat tttcagtaga gacgcggttt    8460
ctccatgttg gtcatggctg gtctcgc                                       8487


<210> 9268
<211> 307
<212> DNA
<213> Homo sapiens
```

<400> 9268

```
ggacgccggc cgaccgggtg tctgcatact gtgggcggcc tttccaagtg tggggagcgg       60
cctccgagaa cggtgtccat gacacagggc gggaagagat aaggcctagg gaaggcgccc      120
ctcgggccta tccacctctt ctggggctcg gcactaggaa gcagcttccc tctcaggccc      180
ctttgtctcc aagccgttcc aaactgagta ccgggagacg acacaaaggg agggcggtga      240
cggatggcgc aggcgcggga gccgcctagg ctgctgggag tggtggtccg gccgcggaat      300
gggtagg                                                                307
```

<210> 9269
<211> 764
<212> DNA
<213> Homo sapiens

<400> 9269

```
tctgagatgg agtctcactc tgtctccagg ctagagtgca gtggcccagt cttggctcac       60
tgcaacctct gcctctcggg ttcaagcgat tctcttgcct cagcctcccg agtagctggg      120
actacaggtg cgtgccacca tgcccagcta attttttgtat ttttagtaga gatgggtttt     180
caccatgttg gccagtatgg tctcgagctc ttgaccatga tccgcccacc tcggcctccc      240
acagtgctgg gattacaggc gtgagccacc gtgcgctgag tgatacgtgg ttcccttttaa     300
cttcgcacat ggtaaaatca gtttctttcc atgatctgtt tcacagtctc tgtgaagcta      360
cctaccacaa agaagtagtg agtgatgact ttctagaatc taagtatatg gcatgtattt      420
attataagta aaacattaag tttgctgatt gtttacttgt gataaacaat tattgtgaac      480
tttatttgtg ctggacataa gtgtctgttt tacagtgaaa ttccattata gagggttact      540
tggtagagaa atgcaaattg tagttggtca tatactaaaa tttgaacttt ttacatatca      600
atacttacaa ataggtgttt attttcccac aaaactccag aacatttaag agtctcgggt      660
gtttaaattt gatgagattt acccaaacaa atagtgaaca aaaggtttat gaaaataagt      720
tatgaaacta aaatacttaa taaacatcca gtgacaataa aaat                       764
```

<210> 9270
<211> 1182
<212> DNA
<213> Homo sapiens

<400> 9270

```
ccagctccaa cccacagcaa ttacacttct ccccctggtg aaggaaacac ttgcataaga       60
ataagaggtt cttccacagg cattttaaaa cctttttttct ttcctcttct ccacaatatc     120
agcatttaag tttaagcaag ttttttttatt tctagaagac attttactag gcaaggaatg     180
ataagaatcc ctgtgtatat tctctattaa gctttaattg tgaaaaagga tttgtagggc      240
tagtcttggg ctgtggccaa tctggtatgc ttcctgtgtc tgtatggttt gtgctgtaag      300
cctccatctt gttttacaca tcctggggac atggcccaca actgcttgac aggactttgt      360
ttagcagtcc tgccttaggg gatcagccct ctctggccaa tatctgcatg ttttcctact      420
cctgtctctt aaagggcccc acccagcgac tggattttct tctgcctctc tgtgtgggta      480
ctgtgtgtga tatctgtaaa aagtgcgcta attaatttgg cctaaagaaa gacaagaact      540
tggatcaaat ttttttttaag ggaagttaaa agctgtggta cctttcagtt cacatgactt     600
taatctctga gaaataaaaa cagccctaaa gactattggt aaaatgcagg tgagatgcaa      660
ggtttttctaa gtgtttttgag gttaaaaact gcttttttggg ttttgagaac tatttgactt   720
gaaggcttca caattggtaa ggcctgggga catatggaaa taaccacgct cttaattatg      780
ctggagtca aaccttggct gcacctagca cacaattaaa caacttacca agttttacc        840
ttaaaagtta aaaattgcta ggagttacta ttccgagatg taattgagac tacaggaaat      900
agatttatat gcaagatgtg taagaacagt aaaatgtggt gaaattttgt aaaatattat      960
aagaaggcat ggaaatgtat acttttgctt agggttaaag gattgtttaa attaggaaaa     1020
agctgaaggt tcaaacaagt ggtggagaat tgtggaaatt aatcttgcag aagaggttca     1080
acatattaac taaattcaaa agggttataa ggttataaaa ggttttgct tctgtgaaat      1140
ttctgagtca tcctttcggc aaaataaata acttaatggc aa                        1182
```

<210> 9271
<211> 2766

<212> DNA
<213> Homo sapiens

<400> 9271
gagctgagac catgccactg tactccagcc tgggcaatag agcgagattc tgtctcccaa   60
aaaaacaaaa aacaacaaca aaacttgcta ccacccaggg attttctgct atttaaaagg   120
tgaatttctt ttctggtact aaactgtagc tgcttaactt agtaaaggct gtgtttggcc   180
aggcctgtgc cagaggctca cctggagtgc tccacccact ggcaggcaag tcctattcct   240
attcacccag gatccccaag gctgggctgg gatataaatg ttgggatagg aaagaaatat   300
ttcctttta gaggaaagca agaagaaaca ttgcctgaaa ggtgatttc tagtcatttc   360
caattagtac agaaatgtta ctgcctctgg gtgcagtggt tcacgcctgt aatcccagca   420
ctgtgggcgg atcacttgag cccaggagtt tgagaccaac ctgggcaaga tggcgagacc   480
ccatctctac aaaaaaattt aaaaattacc tgggcatggt ggcacacacc tttattctca   540
gctactcagg tggctgaggt gggaggatcc cttgagccca ggtggtcaag gctgtggtga   600
gctatgatca tgccactgca ctccagcctg ggtagcagaa caagaccctg tctcaaaaaa   660
aaaaaaaccc caaaaactgt tactactagg ttggagtagc ctaaggcagt agggcaagga   720
ggtgggccca ggctggtctg tggggagctg gagaatggtg actcgagtga ccagtggaca   780
ggcaggaccc aggccagcat tacaagcggg gatgtcaggc aggagcaggg gagcttctcg   840
cttggcagct ggtttatggt acacttttga aaagtaagct cccagggcct ggccctcaca   900
tgctcagtga atatttgact gaagggtccc ctcatagctt gggagtattc acaggcctaa   960
atgttagtta tactattagc taagcctggt cctttgttac gaaatttaaa aatgaaattg 1020
caacattctt gtggaaattc aaagacatca tttctttca acaaattcac acattcgttc 1080
atgcttcttc tatacctttt accccctaaag tcatccactc ctgagttcct cctgctggtt 1140
tcccaaactg cgcaatgact gccccatcat aggcagtggt ccgtggagtc ggcctcactt 1200
tcgcctttcc ccgcatctac ttgtttccaa ggccagtggt acttaactgg gtcaagttgc 1260
ctgtggacct tcaggaacag aattgccatg ttcctcactg cctgcaggaa aggctccatt 1320
ccaagcccag tgaagatgtg tgcctatcca gccgcccacc aaggatgtca tctgtagaat 1380
gggtggaggg caggggttta tttggtgtat attttacat taaaatgcac ttaatatcac 1440
tttgtaaagc ccagatgagt gcaaatgtgc ctgtaacttc ctcctttaat ctgtccaggt 1500
agtatttagt ctttagtctt acattttctt tctccctta tttcatgaaa ttccttgaga 1560
aaacttcaac agtaaagaaa gaaatttcat tcatctcaca actcttccaa acgaggaaac 1620
ttagtgaaat atttcagagc ttctagatgt gaggtacaaa acttgggatc aaatggaatc 1680
ttgattcact aaccaattta agatctgact tctaatttta ggaactttgg gttatgaacg 1740
cttccatttt atacctgtgt ctagttagtt tctgcctatc tatccaagaa gcttttatca 1800
agggtccacc atgtgccagc cactgaagta gatataaata caaggatgtg taaggtatgg 1860
atgatggtat acgaactgtc atcttactgg atttgtccgc tctgttaaag atacggttcc 1920
gaaaacttttt aaagcccta gagagggctt taaggcaatg tagcatcata tatagaggca 1980
tcaacctgtt catatctttc tatttaacag aactgtgcac ctgggcacaa gggtgtgcac 2040
aacaggatgt gtacagcagc actgttaaag tgtagcacat ccatactaca ggatcttatg 2100
caactgttgg aaagaatgaa gcgatgctgc actgtggtca tgcagtgatc tctaagacat 2160
attaactaga aagcaaaagg tttaacaatg tatagcagct gggcgcagtg actcgcgcct 2220
gtaatcccag cactttggga ggctgagtag ggcggatcac ctgaggtcag gagtttgaga 2280
ccaacctggc caatgtggcg aaacgctgtc tctactaaaa ctacaaaaat tagctgggcg 2340
tggtggcgcg tgcctgtaat cccagctact cggcaggctg aggcaggaga atcgctttga 2400
actgggaggt ggaggttgca gtgagccgag atcacaccac tgcattccag cctgggtgac 2460
agagggagac tccgtctcta aaaacaacc ccccccccc aaaaaaaaaa atgcatagca 2520
agctgtaatg ctctttgtgt tttagaatag tagaggtctg gaaagttgtt tgcttttccc 2580
cagttttttt ttgctgtgtt acctctgaag ggaattgagg tagaggggag agttagaagg 2640
aatattcggc tttttctattt tatatcctcc taggtgaaat ttttacaaca aacatgtact 2700
ggtgtatttt gaaatgtttt taaatttttg tatttcaaaa taataaaata taaattcaaa 2760
ctgcaa   2766

<210> 9272
<211> 513
<212> DNA
<213> Homo sapiens

<400> 9272
ctttgggaag gtaagcaaca aatttacatg cttactttc ctactgacta ctagaaaggc   60
gtgagaattc ttattttagc accacgtgtg gtagccagca tccaggatgg cccctaacaa   120

```
cgcctgcttc ccatcctcat attgtcctcc cacagtgtac cagagttgtt ttgtgtgaac   180
acagcagaag tgatggtatg tgacttccaa gatgaagctg taaaaggcta gaacttccat   240
cttgggctat ctcttggaac accactctgg gggaagccac gtcacaagca gccatatgga   300
gaggcccaga tgacaaggaa ctgaagcctc ctacaaacaa ctatgagctt ggaagcggat   360
cttccagctc cagtcaaatc ttcagagact gcagccccag ctgacagctg agagtccctg   420
agccagaagt cccccactaa atcacttcca gattcctgac cttcagaaat tacgtcagat   480
aactgtttta aactaagtgt tggggtgatt aca                                513


<210> 9273
<211> 14803
<212> DNA
<213> Homo sapiens

<400> 9273
ggagagaagg aggacgagga cgaggatgtg aagaagagaa gggaaaagca aaggagaaga   60
gacaggacgc gggaccgtgc agccgacagg tgaggcgcgg gcacacgacc ccacaggagg   120
aggtggactc gtgcggtgga ggcgctgccg agctcacctg tcctcgctcc acaatgctgg   180
gggcctggtg gcctgactcc tctggccaaa ccagtgggag gcaaaacagt aaacaattgg   240
gagtgcagaa aagaccatca ctcgtgctcc cagcacacga gctacctgtc ttctaggatg   300
gctgggacgt tgctttggtg gttaggtttc tgttcttgct ttagaggatt ggtgtttgac   360
tcctgtgtct ctattcctct ggaatcccag ccttgctggt gggtctgtgt ggtccataac   420
tgctcagcag cgggctctgt tactctcctg caggcctgag gggcatccct gccccctagc   480
ctggtgtctg gcatctcaga cactgtcctg tgttcacctt atccaaatcc agaccacccc   540
tggagtttga cacagctagg agacaggtag agagatgatc ctaccatcaa gattttgtcc   600
cacaatagaa aaggattgca aaaatgttga gcccaaagga tgtcattgtg agcacaccat   660
gtgcctgcct ctccctgcca ggagttaagt ggcttctgac tagaaactga aatcaccagt   720
gatcatgtga tgctggggaa tccttgacct taaggttcac atgggacagt gattttcttt   780
ttgtttgttt gtttctgaga tggagtcttg ctctgtcgcc caggctggag tgcaatagca   840
taatctcggc tcactataac ctctgcctcc taggttcaag cggttctcct gcctcagcct   900
cccgagtagc tgggattaca ggcgcctgac accacgcctg gctaattttt gtatttttag   960
tagaggtcgg gatttcaccgt gttggcaagg ctggtcttaa actcctgatc ttgtgatctg   1020
cccgccttgg cctcccaaag tgctggtatt acaagcgtga gccactgcgc ccagtctggg   1080
cagtgattgt cgtgttcaaa gaaatgctta gtaaaagggg ccagatgccg tggctcacac   1140
atgtaattcc agcactttgg aaggctgagc tggcggatcg cttgaggccg ggagttcaag   1200
accagcctgg tcaatatggt gaaacccatc tctactaaaa ttacaaaaat tagccaggca   1260
tggtggcagg tgcctgtaat ctcagctact cgggaggctg aggcaggaga atcacttaaa   1320
ctggggaggt ggactttgta gtgagccaag gttgcaccac tgcactccag cctgggcgac   1380
agagcaagac tctgtctcaa aaagaaaaag aaacgggctg ggggcagtgg ctcacgcctg   1440
taatcccacc actttgggag gccaggcag gcggatcacc tgaggttggg agttcgagac   1500
cagcctgacc aacatggaga aacccagtct ctactaaaaa tacaaaattc gtccggcatg   1560
gtggcgcatg cctgtattcc ccgctgctcg ggaggctgag gcaggagaat gcttgaacc   1620
caggaggtgg aggttgcagt gagccaagat cacaccactg cattccagcc tgggcaacaa   1680
gagcgaaact ctatctcaaa taaaaactcc atctcagtga gccgagattg tgctactgca   1740
ctccagcgtg gcgacggag caagactcca tctcaggaac aaaaaaaaa aagaaaatc   1800
actgttccat gtgaacctta aatcaaggat tcaaaaaaa aagagagaaa tgcttagcaa   1860
aacgaagcca ggaaccaaac gcagaactgt ttcttcttaa gtggtacagg aacattgaaa   1920
cccttgttat tttaaacaga taaatggata gagtagatga ctttcatgt cacatggaaa   1980
ctgagatgac attttctttt taattatttt taaacttaaa taatctaata aagagatagg   2040
ggtctttctc tgttgcttgg gctgttgaac tagcctcaag agatcttcct gcgttggcct   2100
cccagagtac tgggagaagg gtatagagat gacattttt ttttactact ttttgctttt   2160
tttttttttc tttttgcttt tttttcatct tgtatgttct tccaatgaac aggtgacttt   2220
tttaaaaaa aaaaaagaa accttcagag tgtgcgctag tgactgagga tcttttttctt   2280
tttttttttt tttatccttt gagatggagt cttgctgtgt cacccatcct agagtgcagt   2340
ggcacgatct cagctcactg caacagtcca cctcctgggc tcaagtgatc ctcctacctc   2400
cgcctcccaa gtagctggaa ttacaggcgc ccgccaccac acccagctaa tttttgtact   2460
tttagtagtg acggggtttc accatgttgg ccagactggt ctcaaactcc tgacctcagg   2520
tgatccacgc accttggtct cccaaagtgc tgggagtaca ggcatgaacc accgcgcctg   2580
gccatgactg aggatctcga agggacttgg aggaattctc acggggaggc agaggtgtag   2640
cagggaagca cacagctcat cagtagcttc ctgacagtgc tgtgtatgag ccccgggaga   2700
ttgtcccctc cccgcctacg taggggctgt ctgcagaagc ggaggtgtct tcatgttgct   2760
```

6879

```
tgtcagaggt cagaagccag gcatgtggag ttggcagagg tgaagtcctg agtgccacag   2820
ggcctgcacc cctacaccag aagggggcagg agcctccagg agagagccag ggagggagca   2880
ccccagtgtg gtggcctggg ggcctgcagg ctgctctccc ttgccatgca gcgtggttgc   2940
atttggggag actttgaaag cctgtgacaa agaagcctca cttttttatct gtagaatttg   3000
atgtgacatg tctttacgtg tagtctcatg gcagaactga tactgggttt tgtgttttga   3060
attgtgcgag gtgtttttgtc tgcacgtaaa atgaggttgc cttatgtcat cccagttcct   3120
gcagagagga actcatctga gaagctgtga agctagatgc tgggccccaa gagctgccag   3180
ccagagccta gggcgtcccc agttccaagc agttgcagct ttctggtgtt ttctcagggg   3240
ctttggggcc agaggggctg cagtgccagc agattactat gcgagtcatt ttcctgagat   3300
acctgcaagc ctgtgttccc attcttcagc tggggaagtt tgggtaactg ccattctgtt   3360
gccctttggg aagtcggaac tcttggttca gcagccactt tccctggctg agtgcggtgg   3420
catgcacctc taatcccagc tacttgggag gctgaggtgg gaggatcgct tgagcccagg   3480
agtttgagaa cagcctgagc aatacagtga aatctcatct cgagaaaaag aaaagtctgg   3540
gtgcggtggc tcacgcctgt aatcccagca ctttggggag gctaaggcag gtggatcacc   3600
tgaggtcagg agttcgagac cagcctagcc aacatggtga aaccctgtct ctactaaaaa   3660
tacaaaaaaa aaataggctg ggcgcggtgg ctcacgcctt taatcccagc actttgggag   3720
gctgaggtgg gtcaatcacg aggtcaggag ttcgagacca acctagccac catggtgaaa   3780
ccacgtctct actcacaata caaaaattaa ctgggagtgg tggtgggcgc ctgtaatccc   3840
agctactcgg gaggctgacg caggagaatc acttgaacct gggaggcgga ggttgcagtg   3900
agccaagatc gcaccactgc actccagcct gggcaacaga gggagactcc gtctcaaaaa   3960
aataaataaa taaaataaaa taaaaataca aaatttagc caggcttggt ggcgggcccc   4020
tgtaatccca gctactcggg aggctgaggc aggagaatcg cttgaacctg ggtgttagag   4080
gttgcggtta gctgagatcg caccattgca ctccagcctc ggcaacaaga gcaaaactcc   4140
atctccaaaa aaaaaaaaaa aaaaaggaaa gaaaaaaaat tactgaaaat cctgtttctt   4200
tttttttttt tttttgccca ctgccaattt atttatttat ttatttattt atttatttat   4260
ttatttttat tgatcattct tgggtgtttc tcgcagaggg agatttggca gtgtttgtgt   4320
ccctgggtac ttgagattag ggagtggtga cgactcttgg catgctgcct tcaagcatct   4380
gtttaacaaa gcacatcttg caccgccctt aatccattta accctgagtg gacacagcac   4440
atgtttcaga gagcacaggg ttgggggtaa ggtcacagat caacaggatc ccaaggcaga   4500
agaattttc ttagtataga acaaaatgaa aagtctccca cgtctacctc tttctacaca   4560
gacacagcaa ccatccgatt tctcaatctt ttccccacct ttcccgcctt tctattccac   4620
aaaaccgcca ttgtcatcat ggcccgttct caatgagctg ttgggtacac ctcccagaca   4680
gggtggtggc tgggcagagg ggctcctcac ttcccagtag gggcggccgg gcagaggcgc   4740
ccctcacctc ctggacgggg cggctggctg ggcgagggg ctgacccccc cacctccctc   4800
ccggacggtg cggctggccg ggcggggggc tgacccccc cacctccctc ccggacgggg   4860
cggctggccg ggcagggggg ctcctcactt cccagtaggg gcggccgggc agaggcgccc   4920
ctcacttccc ggacggggcg gctggccggg cggggggctg accccccccc acctccctcc   4980
cggacggagc ggctggccgg gcagagggtc tcctcacttc ccagtagggg cggctgggca   5040
gaggcgcccc tcacctccca gacggggcgg ctggccgggc gggggctga tccccccacc   5100
tccctcccgg acaaggtggc tgccgggcgg agacgctcct cacttcccag acggggtggc   5160
tgctgggcgg aggggctcct tacttctcag acggggcggc tgccgggcgg aggggctcct   5220
cacttctcag acggggcggt tgccaggcag agggtctcct cacttctcag acagggcggc   5280
caggcagaga cgctcctcac atcccggacg gggcggcagg gcagaggtgc tccccacatc   5340
tcagacaatg ggcggctggg cagagacgct cctcacttcc cagatgtgat ggcggccggg   5400
aagaggcgct cctcacttcc tagatgggat ggcggccggg cagagacgct cctcactttc   5460
cagactgggc agccaggcag aggggctcct cacatcccag acgatgggcg ccaggcgga   5520
gacgctcctc acttcccaga cggggtggcg ccgggcaga ggctgcaatc tcggcacttt   5580
gggaggccaa ggcaggcggc tgggaggtgg aggttgtagc gagccgagat cacgccactg   5640
cactccagcc tgggcaccat tgagcactga gtgaacgaga ctccgtctgc aatcccggca   5700
cctcgggagg ccgaggctgg cggatcactc gcggttagga gctggagacc agcccggcca   5760
acacagcgaa accccgtctc caccaaaaaa atacgaaaac cagtcaggcg tggcggcgcg   5820
cgcctgcaat cgcaggcagt aggcaggctg aggcaggaga atcaggcagg gaggttgcag   5880
tgagccgaga tggcagcagt accgtccagc ttcggctcgg catcagaggg agaccgtggg   5940
gagagggaga gggggagggg gagagctgaa aatcctgttt ctatttcagc tctcctcaga   6000
ggtgagctga tgcccctgc ttcactcgct gatgctccct gcttcactcc cctccttgtt   6060
ttccttctac agaattcagt ttgcctgttc tgtatgcaag ttccgtagct ttgatgacga   6120
agagatccag aagcatctgc aaagcaaatt tcacaaagag accctgcggt tcataagcac   6180
caagctgccc gacaagaccg tggagttcct ccaggtaaag gaaacctggg ccccgtcacc   6240
gcgtctcttg cccatcccgc aggtgccgga tcccttgaag gaggaaggga aatcagaggc   6300
tatacttggc caaggtttcc tttcccagat agagtagctg tgtaagtccc tgagtcacag   6360
ggacaaccgg gagctccagc catcgtgctg tgctgcccca cgcagctgct ctgatagctg   6420
```

```
cctgcctagc cctggcagtt gagaaatgcc cacatgcgcc cacctctcat tttactttat    6480
gccctctcca atcccaccta ggaatacatt gtaaacagaa ataagaaaat tgagaagcgg    6540
cgtcaggaat tgatggagaa agaaaccgca aaaccaaaac cagatccttt caaaggtgag    6600
ttgtcatccc aggatgagtg ctttcctgga tggtagtaag gcatgtgaca ggacccgtaa    6660
aacgtggcac gaggccgggc acggtggctc acacctgtaa tcccagcact ttgggaggct    6720
gaggcaggcg gatcatgagg tcaggagatc aaggccatcc tgtctgacac ggtgaaaccc    6780
cgtctctact aaaaaaatac aaaaaattag ccgggcgtgg tggcgggcac ctgtagtccc    6840
agctacttgg gaggctgagg caggagaatg gtgtcaacct gggagtcaga gcttgcagtg    6900
agccaagatt gcaccactgc actccagcct aggcgacaga gcaagactct gtctcaaaaa    6960
aaaaaaaaaa aaaagtggca tgaagccagc ccaagttggc tgagaaggtg atgacgagac    7020
ccgtgggaag agcgctcagc agcaatggaa agaaaccttc ggatgtggcc ttgcatagat    7080
tgcagcttat atcagtgaca ttaagcactt tcatatcttt tcctccttgg tttgaaaaga    7140
aacaaccagg aggaacagaa aagctgaaaa gtgcagaatt cacagctata gaggccgatg    7200
tgctgaccca tactccccat agaaaggcag gctgtgccct tctgattcct tagagttgca    7260
gggagaaaac gtgggcccag atggggagta ggaggaaagc atcacttgct gtcccagatc    7320
ctacaagaca tgcgtttcct ggcagggatt ggccaggagc acttcttcaa gaagatcgag    7380
gctgctcact gcctggcctg cgacatgcta attcctgcac agccgcagct cctccagcgg    7440
cacctgcact ccgtggacca caatcacaac cgcagggtga gtcttcctcc ccacactgcc    7500
tggggtgctc attgcagggc tgcggctcag agcctgctgt gtcttatggg gaataacaac    7560
atctttaggg gttcttgcta tgtttcaagt ctatcacttc catcgatggg tcgtaagatt    7620
cgtctcaatt tttataaaaa tgtgagaaaa tgtgttgctt agactcgatt aaatgcagta    7680
gctgagattc tcctgatagt gtttccacgt tggtcagttt tcccactagc ggaaggcctg    7740
ggggcttcca taagctgaga ccgaagggcc attgaaagct gagtggccca ggggacttgg    7800
actaaaggac tggttctgtc cttacctagc tgctggggct tcaggctaaa tgttgagccc    7860
aggggtcaag tgttgaagat gctggaaaaa taccttattt tgtaaagagt cagatcatga    7920
gtatttttag cattgcagac catagaggcc ctatccagca acagctctac ctgctgtcag    7980
tgcagaaaag cagacagtga agagtgcctg tggctgcgtt tgctctgcag cctgtcactt    8040
tctggccctg ggttagcagc tctctcctta gtttactcag ctattaaatg gggaggtcaa    8100
gagctgctca cccatctcac agtactgtgt tttggttttg gttttggttt tggttttttg    8160
gtttacgttt ttgttttttt gttttttttt tacggagttt cactcttgtt gcccaggctg    8220
gagtgcagtg gcacgatctc agttcactgc aacttctgcc tcccaggttc aagcaattct    8280
ccagcctcag cctcctaagt agctgggatt acaggcgccc accacaatgc ccggctaatt    8340
ttttgtattt ttaatagaga cggggtttca ccatgttggc caggctggtc ttgaactcct    8400
gacctcaggt gatccacccg cctcagcctc ccagagtgct gggattacag gtgtgagcca    8460
ctgcacccag ccccagtact gttaaagatc agctgaaaag cagtatacaa acaagggacc    8520
attgtgcaaa caagtcaggc tctaaaacag agacttggtg cagtcatggt tgtgtgtttg    8580
ttttttgttt ttgttttttgt ttttaatttt attttttgag acagagtctc actccattgc    8640
ccaggctgga atgcagtggt acaatctcag ctgattgcaa cctccatctc ccaaattctc    8700
atgcctcagt ctcctagta gctgggatta cgggtgtgca ccaccacc cagctaattt    8760
ttatattttg tagacagggt ttcaccatga tggccaggct tgtctcgaac tcctggcctc    8820
aagtgatcca catgcctcag cctcccaacg tgctaggatt acaggcatga gctgccacac    8880
ccagcatatt catacttttg ttgttgaact tatgaaatca atgtaacccc aaaaactgaa    8940
aagaaagagc ttgtcctttt cctccactga gtccacacag cctttcattt gtaaatgctc    9000
ttgtttcacc cccaattctg catgtgctac atgggtatca gtggtgcatc tttgcattta    9060
tctcttaaga ttgcctagct tttccagttt gttagtcttg gttgcacagt ctctggagcc    9120
ttctattctt ggaggctggc gttttgagat tcgcttctct gcatagggct gatctcagga    9180
tgactcggca gagcctggct ggtttattct cttccttaat ctttgccatt tttaagagct    9240
cacatttggt tccctttgca gttggctgct gaacagttca agaaaaccag tctccatgtg    9300
gctaagagtg tttgaacaa cagacatata gtgaagatgc tggaaaaata cctcaaggtt    9360
tgtgcttgca agtaccacag acaggaaaag ctttcaaaag ggaagatgaa ccccaggagc    9420
agggagttga atccagagtg cagcatttag catttctgag tcttttgaca gttgagggac    9480
actggaatgc atcaagctca ggaacatgac aactgggatt ctaatgagt cagtgcttgc    9540
ctggggactc tggggatgtg gcgctgcttg attaatcagt gcgtaatgga tttttaccat    9600
gaaaaatcct gattgtttag ccttaaaatt ctgagcaaat gatggttagg tgatttttta    9660
agaaaaaccc aaggctagcc ctactcggga agctgggatg ggaggattgc ttgagcccag    9720
gaatttgagg ctacagtgag tgatggtgtt accactgcac ttcagcctgg gtaacatagc    9780
aagactggtc ttgaaaataa aggaaagcgg ggaaccggga attatggctc atgcctgtaa    9840
tgccaatagt ttgggaggct gaggcaggag gatccctgag ctcaggagtt agaggagtta    9900
acgattgcgc cactacactc cagcccaggt gacagagtga gaccccattt caaaaaaaaa    9960
aaaagaatcc aaggtacatg agaatttttcc aggagagaag ctaaaaagag atttcattga   10020
tagagccaac tgacagtgag gttgaaggtg aggggtagtg aagaaccaga gccttcatga   10080
```

6881

```
tgggagcagc atatcgaagt cccaaagtgg gtgctcatgg agagaaggct ggttggaaga  10140
gctcccagtt cttccttgtg aaacccattt tgctcagtgt tcatcccagg actttagcat  10200
ttggggcagg tggctaagtc ccagcccaca acctgacttc aggacctttg ccctcctctc  10260
agttactaaa cacttccata tttgacagtt ccatctatta aaggcacaga atctaaataa  10320
ccaattgaag aaacatgact gggccgggcg tggtggctca cacctgtaat cccagtactt  10380
tgggaggctg gggtgggcgg atcactttga gttcaggagt tcaagaccag cccggacaac  10440
atggtgaaac cctgtctgta caaaaaatac ataaattagc caggcgtggt ggcatgcgcc  10500
tgtggtccca gctactcagg aggcggaggt tgcagtgagc caagatcgtg ccactgcact  10560
ccagcctgga tggcagagtg agaccttgtc tcaaaaaaaa aaaaaaaaa aaaagaggg  10620
aggaaacatg actgatgtat attttacctt tgcagcttaa gcaaggtaaa agtttccaga  10680
gtcaagtgtg agctcaggct tctaagcgtc ttttttttttg agtcagggtc ttgttctctt  10740
ggtacccagc caagagattc ctgcagagat tctctgcagc ctcgaattcc tgagctcaag  10800
agatcctccc cactcagcct gccaggtagc tgggactgca atagtacacc accacacctg  10860
gctaattttt ttttttttt ttttttttt tttttgagat ggagtcttgc tctgtcaccc  10920
aggctggagt gcagtggtgc gatcccggct cactgcaagc tctgtgtcct gggttcatgc  10980
cgttctcctg cctcagcctc ctgagtacct gggactacag gcgcccacca ccatgcctgg  11040
ctaatgtttt gcaggggggat ggggtggccg ggcgtggtgg ctcacgcctg taatcccagc  11100
actttgggag gccgaggcgg gtgcatcacg aggtcaggag ttcaagacca gcctggccaa  11160
gatggtgaaa ccccatctct actaaaaata aaaaaaaat tagccaggcg tggtggcggg  11220
cacctgtaat cccagctact tgggaggctg aggcagtgaa ttgcttgaat ccgggaggtg  11280
caggttgcag tgagccaaga tcgcgccatt gcactccagc cttggcgaca gaccaagact  11340
ccgtctcaaa aaaagaaaag agagatgggg tttcactgtg ttagccagga tggtctccat  11400
ctcctgacct tgtgatctgc ctgcttccgc ctcccaaagt gttggaatta cagacgtgag  11460
ccactgcacc cggccacatg ctggctaatt ttttaagaca gtcttgctct gttgcccatg  11520
ctggtctggc ctcaagtgat cctcccgcct tgacctccca aattgctggg gttacaggcg  11580
tgagcacctt gccctaagca tcatatttta aaacatgttt cctaatctgg taatgataac  11640
ttttagtttg cttgttttag actacagata gttttctatc atatacttag gagaattttg  11700
acttctgagg gagtcagact tggatttgaa tcttgattcg ccacgttgcc caggctggtc  11760
tcgaactcct gagctccggc agtcctccag ccccagcctc ccaaagtgct gggattacag  11820
gcgtgagcca ctgtacctta atgaaactaa aatattacgt agtgttaact tcctattaca  11880
tgccctttat tttattttat tttatttttt tgagatggag tctgactctg tcgcccaggc  11940
tgccaggctg gagttcagtg gcgtgatctc gacttactgc aagctccgcc tcccaggttc  12000
acgccattct gctgcctcag cctcccgagt agctgggact acaggcgctc gccaccatgc  12060
ccggctaatt tttttttttg tatttttagt agagatgggg tttcactgtg ttagccagga  12120
tggtgtccat ctcctgacct cgtgatccac ccatcttggc ctcccaaagt gctgggatta  12180
caggtgtgag ccatcacgcc cggcctcatg ccctttttta aaaaacatca agttaaggct  12240
gggcttgtga acttttcctc gctggtacat gcttgattaa aaattgcagg ccaggcacgg  12300
tggctcgtgc ctgtaatccc agcattttgg gaggccaagg caggcggatc acctgaggtc  12360
tggagttcca gaccagtctg cccaacatgg tgaaaccccg tctccactaa aaatacaaaa  12420
ttagccgggc gtggtggctc ctgcctgtaa tcccagctac tcaggaggct gaggcaggag  12480
aatcacttga aaccaggagg cagaggttgt ggtgagctga gatcgcgcca ttgcactcca  12540
tcctgggcaa caaagcaaaa ctccgtctca aaaaaaaaa aattgcagaa tgggccgggc  12600
atggtggttc acacctgtaa tcgcagcgct ttgggaggct gaggtgggtg gaaaccccat  12660
ctctactaaa aacacaggag gcggaggttg cagtgagccg agatcgcacc actgcagtcc  12720
agcctgggca acagcgagac tccatctcaa aaaaaaaaa aattgcagaa tatctccccg  12780
aggtgttttc tgaatctgta ggctctgaga acatgtagga ttcactcctg tggcataatt  12840
tacagaagtg tttcccttgt ggactgctgg ttctgaaaag ctgacatccc cgcaatcatg  12900
ggcctcctga gctctgctta caccacgctg accggtgttt cctctttggc cagggtgagg  12960
acccttcac cagtgaaact gttgatccag aaatgaagg agatgacaat ttaggaggtg  13020
aggataagaa agagacacct gaggaggtgg ccgcggacgt cttagcagag gtgattacag  13080
cagcagtgag ggccgtagat ggggaaggag cgcccgctcc agagagcagc ggggagccgg  13140
ctgaggacga aggccccacg gacacagcgg aggccggtag tgatcctcaa gccgaacagc  13200
tgctggaaga gcaggtgccc tgtggaacgg cacatgagaa gggcgtcccc aaggccagaa  13260
gtgaggctgc agaggctgga aatggcgccg agacaatggc agcagaggca gaaagtgccc  13320
aaaccagagt tgctcctgcc ccagctgccg cggatgctga gtggaacaa actgatgcag  13380
agtctaaaga cgctgttccc acagaatgat gctcatttcc ctgttccagg gaaggcgttg  13440
ggatgatgga tgcgttggtc tttctccctt ggtttgtaag cagtacaagg gcgtgtgctc  13500
ccagaatatg ctgtaatcta attttggtga agagacccag cgtttcctcc tgagcagtgc  13560
ctctcacggc ttgtctcatg cagtcgtgtg gcttcttgcc caggtttcaa agctgaagta  13620
cattgtcctt agcggctgta acatgtctct tgacagtagt gcacttggaa taataaaggt  13680
tgggtgatta tatcttgatg atacattact tgttcaatac agccactgat ggaatgcttc  13740
```

6882

```
cttttttatt  ttttccctta  attttttttt  ttatttggtt  gggaacagct  gaatactagg  13800
aatatatctt  gctctataga  ggattttttt  ttgtatgttt  caagcttcag  cctttaacct  13860
atacctttgt  agtgcaccat  atggtgtgtg  actttcacag  gacttcgcag  cacctggttc  13920
acatgtggca  ctgaccgcgt  cacatccacg  cactcccaaa  ggccagaagt  atctgaccga  13980
cctacgccac  tggaaacaca  cccaccgcaa  cctcaagaac  cagactgtgc  agagggcatt  14040
gcgtcccaat  ctttagtcct  tgctgaatca  gttctctaat  attttacctc  atttgtgttc  14100
cacctctaga  ttacttcagg  ttttttttcct ttaaaattag  ttactaccac  tcaaatgtat  14160
ttacaaagag  aatttggcca  ggcacggtga  tgcataccta  taatcccagc  acttcgggag  14220
gccgtggtga  gaggatagct  taagcccagg  agttcaagac  caacctggac  aacatagcaa  14280
gaccccatct  cttaaaaaaa  aaggaaagaa  aacttgatgt  gattgccata  ggtggaataa  14340
tccaacataa  attgccatag  atagaaggta  tctgtaatat  atatatatat  atataaaatg  14400
aaatatatgt  ttcatttttag agaaataact  attactttag  atctttccaa  atctgagaaa  14460
gggaggctag  catgtgttca  aggttagcac  gcaacagaat  ttcctaaaat  cagaagaatt  14520
ggaagatcct  cccctttttga aatggccctg  ctgtgtcagt  ttccctgtgg  cctttttgaac 14580
tgtacatctc  acatgttggg  aaacgctggc  cactgggaaa  tcattagaaa  ggaggctgta  14640
gaatatttgc  cgagcctcta  ctgtatacca  ggggctaact  caccaagcac  attctaggaa  14700
ttgggccctg  ctcatgagga  gccttagtgg  agattccagg  tgaatattta  tgaaaaagtc  14760
aacattagaa  ctgaaaatgg  aaataaactg  cttgaaaaga  cga                     14803
```

```
<400>  9274
ggatactggc  agctgcactg  cacattgctt  cgtgcctgcg  agtgtgtgac  agcagacacc   60
tgcggggtcg  ggagcaccca  ggcccactgg  gtctttgaga  ggcgggcgcc  cttcagcagg  120
tctcttcatg  tccaatgcag  gagaccagag  ggtctgcagc  aacagcagag  caggcttaaa  180
tccctcatgg  cagagcggcc  tgaggtgccg  cggcctg                            217
```

```
<400>  9275
gggtgacaga  gcaagactcc  gtctcaaaaa  acaaacaaaa  aaagattgaa  gtaatgaatt    60
ttatttcagt  ggtatgggga  accttgtttc  tgacagtagg  ggaagctatc  atgttcctgg   120
taggaggttg  catcttattt  caagcggtgg  gaaaacagga  cctggctttg  cattagtaac   180
tgaagccagg  tggtgaactc  tcagcatgtg  taaggagccg  gctgagaagg  agctttgctc   240
ccatgatatt  aaattatctg  attattgaaa  acttttgtaa  atggtcatta  gtgagcaaat   300
tgtcttttta  aaaattctat  tatgaaagag  ttttaaactt  aacagaaaat  aggcaagaac   360
agtgccaaga  actcctgtac  actcctttgc  ccagagacta  ttcctttaga  gcaaaggcta   420
cagcccagaa  tcacgcgctt  caccccattc  atcacagctc  tcctttctgt  ccatctggtg   480
ccactcctca  gttttcctga  acttccgcga  ttttggcgtt  tgtggaggtt  ataggctgat   540
cattttgtag  aatgtctttc  aatgtggatt  cgttgatgtt  tctgcatgat  tagaccccac   600
ctgtgtgtac  ttgaagcctg  aatgtcacag  actctgttct  ttttatccta  ttctgtgtct   660
ttctgtccag  ttactggtga  ggttactgct  gtcgccttga  agcacaaggt  gttctgggtt   720
tgtcttgttt  tttcatgacc  ctgtaactgg  ccacatcttc  aaggagcgct  gcttccatat   780
agtggagggg  ggtgtttgga  aatgagatct  ggttgctggt  gtgcctattt  ccactagggt   840
attgcagctc  ccagaccttc  tcataggata  gagctagggg  acttgtacat  ttatagttat   900
ttctgtatct  gcgtcatata  tcatgttcac  acaaatgcat  ctaattccaa  tctaacatca   960
cagagttgtc  ttttaaaaat  atgacaagct  ggccatgcgt  gatggctcac  gcctgtcatc  1020
ccagcacttt  gggaggccaa  ggcaggcgga  tcacctgagg  ttgggagttt  aagaccagcc  1080
tggccaacat  ggagaaacct  cgtctttact  aaaaatagaa  aa                     1122
```

<212> DNA
<213> Homo sapiens

<400> 9276
gatcgcacca ttgtactcca gcctgggcaa cagagcgaaa ctctatctca aaacaaacca   60
accaaccagg attgaagttt ctattttcct attttcacat acacattttc ttcagccata   120
ttatatgtgt atgtatagcc tacattggct aaatctgagg aacaccacaa acatcagata   180
aatctctcat g   191

<210> 9277
<211> 1936
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1768)
<223> n equals a,t,g, or c

<400> 9277
tttttttttt ttgtattttt agtagagacg ggggtttcac cgtattagcc aggatggtct   60
ccatctcctg accttgtgat ccgcccgcct cggcctccca aagtgctggg attacaggcg   120
tgagccacca tgcccggcct caacgatatt gattctttgg gctgtagtca gtattggatt   180
atgatcaata ttatcaccat ttattttgtt gctacagttc ttccagctgt ggccaatcct   240
tcagttggat tcttgttttc catcaacatt ctccatcctg cttttttgtt ttgagcactt   300
ccttccttcc tagcaccacc aggctcttgt attatccctg tccctgccct ggaatcgact   360
cctcctccag agagccctgg tttcttttgt tagaggatgg tatatagaat ccaacatgca   420
gacactcggt ggacttattg ttactggggt tttgttatac tagggtttca gtggtcagtg   480
ctagtattta tgtatgttaa cccacgctgt gctttggatt caggctattt caaatttttag   540
ataatatggt acatatatta ttaataccac tagttactac attggtactt ttcagcaaaa   600
tatatctaag tgggatcaaa tgagactgta aatagcttta catcagttca ggtcagttat   660
gttgctaaat tacttttggc attaagttta gggaaaaaaa attgggtttg ggattttttg   720
gtttcaacat ttgtgattga gagactatgg acctgtaata agtccaagaa cagcagttgc   780
agtgtaacag gactgttaat ggaatcgggt catttagaaa cagtcaagac ttcgctgttg   840
tgcatgtggt taggagccag tgcacacgtc agttcttagg aaatgtacag tctgagcaat   900
agcatttgaa atccaagact cttcccattg tgttgctgtt gagtgtagaa aataaaatgt   960
gtgaatttct ttatcttgag tattgagatt ctcccctag aataaaacaa gaattttct   1020
ctcagtgtaa aaatgtcaag ttttattctt gaaatgaata gcaaagttaa gcttaaaaac   1080
gtgaacagct tcagaactat aaatgggtat gtatacctt ctgctgtcta agggcagaga   1140
agggaaagaa agtgtggtgc ttatcagagg agacagcagc aagacacatt gtgacagaaa   1200
accaagggta tcctgtgtca cagtgaagtg taatgagggc acctctcctt tcaagagacg   1260
aagattgaat acatgggaag cacactctcc gctgtgtgtt gtctaggaga ggtgcaccct   1320
gtatggaaat atttgggaag gttaagatta agacaggta aaataaagca aaggcaaatc   1380
acaaagcaag ggctaatgtt aatatgaaaa gtgcagaatt caaggaaaaa gcatggggac   1440
aaagaagatt tttcctcttt ttggttgctg ttcatgtgta gcctacaaca gaactataag   1500
acctatagac atttatatga atatttattt gaaacgtat aatatcaaac aatgtaaaag   1560
ccaatagaaa tctcagataa ttgaatgtat agaaactagc agtttgaaag tgattagttc   1620
attatttgct gatcaagcag aaaaataagc atatgaaaga tatttaaaat gggattaata   1680
aagttgattt aacagatcct attccatgtc ctttgaatat ttatagaaat taaatggaac   1740
aaattagggc atcaggaaaa ctatacanaa gtctttacca aaaaaaaaa tatatatata   1800
tatgtgtagt actacctata tatatacata atatatagta ctgcttatat atatatatgc   1860
ctatatgtac acatatatat atacatgtat aggcagtact atgttttctg atcataatat   1920
gttaaattag taaaaa   1936

<210> 9278
<211> 4602
<212> DNA
<213> Homo sapiens

6884

<400> 9278
```
cccagctcag ctactcagga ggctgaggca ggagaatcgc ttgaacccgg gaggcagagg        60
ttgcagtgag ccaagatcgc accattgcac tgcagcctgg gcaacaagag cgaaactcct       120
tcgccaaaaa aaaagaaaaa aaataaaagc taattacaaa tacaggaaaa tggataggcc       180
atgtgtttat aagtttgagc tcttgagcca gtgacttccc tgcacgttca gctttctcct       240
ttgtgaaatg gtaatagaag cacgctgcac aaaaaattct tgtggattac atgtgagggt       300
cttagaaaca cttgatgtgt aagccaacta ttatgtatta ctgtatatgg aacacaaggg       360
atgtagccaa aactaaatgc aagtttgtgc ctcagatgtc ttcctatcag aacagagtca       420
aatccagatt ttgatgctta aatgtgacag cttattcaga tttagaaaaa cttttggtat       480
gggccaaaga aaacatatcc ttaaggggat atggcccta ggccctcatt ttccttttct        540
gtctgagcaa ttaaaaaaag cattaagtaa attccacaaa ttctttggaa tacctagaga       600
taaacagata tcatgttaac tgtatgataa taagttagaa tacttgcaac aaaatgcaga       660
gtttctagg aaaacaagta atcattcaga aataagaata tgaatagttc ctcagttctc        720
cccctttgtg gaatttgtgc agtaaatgct gctccaaagc tctgtggaaa acagaagctt       780
cccatgaaaa atctgacaag ggtatctctc agaaagagag ctgtaatccc agcactgtgg       840
gaggctgagg tgggagtatt gcttgaggcc aggagttcaa gaccagcctg ggcaacgtgg       900
taagaccccc atctgtaaaa aaaataataa ttagccacgc gtggtggtgc acctgtgg        960
tcccaattac tggggagact gaggcggaag aatcgcttga gcccaggaga tggaggttgt      1020
cgtgagctag gatctgccac tgcactctag cctgggtgac agtaagaccc ttgtctcaaa      1080
aaaaaaaaaa agaaaaactg cagattggtg actcttacga agatagatgg aaatgttcta      1140
aataaaacac acttaggatc tggcaatata tatatttaat gtactattct gaccaaatgg      1200
agcttaatca gatagcttga gaatgattta atgttacgaa atctgttaat tgcattatct      1260
caataataga tcggtgaata actttattat tctctcaaca aatcctgtat ttgatttaca      1320
aaatggatgg gaggtttcag ggagagcagt tggaagcctg tgtgctcacc tgttaggaac      1380
gagagtggca acagcagtgg ggaggagtgc tcggctcctg cacctgtctc gatggcagag      1440
cccacaggct tggctgacag acgtgggatg aaggaaagag aagcctctca ctcttcccac      1500
agcattgtag tgcgatttca tgcagaagtc caagcaggtt ccaggacaat tgtgtaagaa      1560
gctatggaca agaacgtcta agaaacggaa atgacataga ggatttgcac tgtagctaag      1620
acttcacgca aggctgtggc cagctgaaag catgttctgg tgctggggct gcgtggcaga      1680
gccaggagcc caggatccag cgcactgggc accgacctgg gacctggtca tctttgcgtg      1740
tggaaaagat ggcatttcca gttattgaca ggtgaatgct ggccttttag ggaaaaaaaa      1800
atattagaat tccatacaga ataaagaatg aagatgagag gttaaaggtt tttctaaggc      1860
atgaagagct gtgggggcag cctgcccttg ttcttttgt cgtgtgtcct tcacatgcag      1920
taactctgtt cacgcctcac aaaaaccta tgaggtggag acctgccatc aacccttcct      1980
gcacgggtgc cactgaggcc ccaaggttaa atcatttccc agagtgtatc agcagaggca      2040
cagccacaga gacacgtccg cacagagagc tttccagatc accagtaaca gcgtgagatc      2100
atggtgcaga aggtcatgag gaggatggca acgagcgaga cacagccggt tggtgctcac      2160
aaggacattg gtagatctga ctgagggcca ggtcggctag gccttcccag gtgacaggag      2220
cccagtgccg gccttggtgc acacagcgcg tccttgtgct ttctcaggag agcttcactg      2280
gggacactct gtgatgtttt tggagggtca tttggtaatg tgttcaggag ccaaaaaata      2340
tgcataatat tcagtcttac aattacattt tttgaattta tctcaaggaa atcccaggga      2400
tctgtgtgaa gctgcacatg ctgctgctgc tcagtgcggg actgtttata atatttgtaa      2460
ctcaaatgtc cagaagaact gtacactctg tgcatgtttt cagtaagttc atatttgtaa      2520
gaaaaagtgg gtgtgttgag agacaaattt ttgtgtacat ttacctggaa acaagcagta      2580
gtacacatat gcatgcatga agtggtgttt tcctgagtgt taagattgtg aatgttttat      2640
tatgatcatt tctacttttt ctattggaaa atactttgtg taattaaaac atgaagatgg      2700
agctaccatc aaaatggtga gcaatagagc actgttcctc ctggggtggc ctggtgggcc      2760
tgagggactc aggtggtgat gaggagtggc cttgagtccc tttccttttcc atgggacagt      2820
ggggacgaga gctagagtga tgaggcaggt taagtgtgtg cctacctccc tgtggctgga      2880
gcactgttgt ggccacccg ggaccccctg agcctggtgt cgccctggct tgctggtccc       2940
agcctaggga gtgggcccct atgggcagag ggtgaggtgg ctgtgctggc actgcagctc      3000
aggcacacac acactggagt gttccaatgg gtgatcaggt tggatggagc cttgaaatta      3060
agtcagtgat gtaattttta taatctgttt cactttaaaa caaaaatctt tgcacacctg      3120
gtccaagttt tctccccttt cttcctgttg ctgccatgat gaaagcagaa gggaccaccc      3180
tccagggaga gcagcaggaa gggagatgcg ggtagggcc ctgggtcagc aggggcggtc       3240
agtccggagg tgcaccccca tttattcctc gttctggaag agatttctag tcacatgcat      3300
gtggctcctg tgccacatgt gtcatgaggt gcccaggtgg gtttggattt ggatgagggc      3360
atctttgagg atgcaggggc tttgtcatac cctgtgggcc ccgtgtacac ccctggggca      3420
gatgtggcct ctaacagggg agggtgcgtg gatctctaag ccggggagga aagcagattg      3480
cagacttgcc gaagtgggag ctgtctgctc ttgtgttttc tttaggggca ggagaatttt      3540
gcccagcagt ccctcgtggc tccctccaca ccactgaccc ttacgcatcc aaggttggag      3600
```

6885

```
ccctggcagg taaagggtga gcaaggtgca gttgcctgtg agcagctgtg gaggggcctt    3660
tcctgttgta cacttcctgt gagggtctca gaccccttgc agactctgga catcacttcc    3720
tagaggggcc tgggctcctt tagtcctgtg agtaaagctt tggttttgat gactgtctca    3780
gggaaaggta gaaaggtgct tggtggcagt gaacttcctg ctgcagaagt gggtgtgacc    3840
ccagtgctgg agaatgggct gtgagccgag tttcccgcac ctgcatgagt gagcgccatg    3900
gtccttctcc acagagcgtc ctgctgtcac tttggtttgt gttaactttg acgcctttct    3960
tgtttcttac tctgctttcc tgcatggagc acacagcccc ggctcccttt cagtctgcat    4020
ggcagacacc tggcctctgc aggtccagtt cattctgtgt cccctttcgg tcgtccctat    4080
gttgccgtca ggtgattgag ggtgaaggtc ggccttggca gcccagtgga aagtcccttg    4140
actcctggcc gtcagtggca ggtctccagc ctttgggagg aggaaacttc tatttaacaa    4200
agaaatggaa ttgactttgc cacacacagc cagagcgatg atttgtagag ccaacctgct    4260
gagacattca aagcatcagt cgtagggtca ggaccgccag gtgaggtgtg gctccacctg    4320
cagcagcctg gggcaggttg cctagcctct ggctttagca tccccttctg tgaaatgggg    4380
aaagtgatgg gacctggctt tgtagggtgg ttgtgaggac ctacaggggt ttttgcaaaa    4440
tacttagccc agggctgact aaaagattca gagacgctgg gcatggtggc acacacctgt    4500
agttccaggt actcgagagg ccgaggcggg aggatcactt gagcccagga attaaagtcc    4560
agcctgggca acatagtgag accttatttc ttaataaaaa aa    4602


<210> 9279
<211> 166
<212> DNA
<213> Homo sapiens

<400> 9279
actgattctt tttttttgt ttttttttga gatggagtct tgctctgtcg ccccggctgg    60
agagcagtgg cgcgatctcg gctcactgca agctccgcct cccaggttca cgccattctc   120
ctgcctcagc ctcccgagta gctgggacta caggcgctgc cgtgcc                  166


<210> 9280
<211> 1936
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1768)
<223> n equals a,t,g, or c

<400> 9280
tttttttttt ttgtattttt agtagagacg ggggtttcac cgtattagcc aggatggtct    60
ccatctcctg accttgtgat ccgcccgcct cggcctccca aagtgctggg attacaggcg   120
tgagccacca tgcccggcct caacgatatt gattctttgg gctgtagtca gtattggatt   180
atgatcaata ttatcaccat ttattttgtt gctacagttc ttccagctgt ggccaatcct   240
tcagttggat tcttgttttc catcaacatt ctccatcctg gctttttgtt ttgagcactt   300
ccttccttcc tagcaccacc aggctcttgt attatccctg tccctgccct ggaatcgact   360
cctcctccag agagccctgg tttctttttgt tagaggatgg tatatagaat ccaacatgca   420
gacactcggt ggacttattg ttactggggt tttgttatac tagggtttca gtggtcagtg   480
ctagtattta tgtatgttaa cccacgctgt gctttggatt caggctattt caaattttag   540
ataatatggt acatatatta ttaataccac tagttactac attggtactt ttcagcaaaa   600
tatatctaag tgggatcaaa tgagactgta aatagcttta catcagttca ggtcagttat   660
gttgctaaat tacttttggc attaagttta gggaaaaaaa attgggtttg ggattttttg   720
gtttcaacat ttgtgattga gagactatgg acctgtaata agtccaagaa cagcagttgc   780
agtgtaacag gactgttaat ggaatcgggt catttagaaa cagtcaagac ttcgctgttg   840
tgcatgtggt taggagccag tgcacacgtc agttcttagg aaatgtacag tctgagcaat   900
agcatttgaa atccaagact cttcccattg tgttgctgtt gagtgtagaa aataaaatgt   960
gtgaatttct ttatcttgag tattgagatt ctcccttag aataaaacaa gaattttct   1020
ctcagtgtaa aaatgtcaag ttttattctt gaaatgaata gcaaagttaa gcttaaaaac   1080
gtgaacagct tcagaactat aaatgggtat gtatacettt ctgctgtcta agggcagaga   1140
agggaaagaa agtgtggtgc ttatcagagg agacagcagc aagacacatt gtgacagaaa   1200
```

```
accaagggta tcctgtgtca cagtgaagtg taatgagggc acctctcctt tcaagagacg    1260
aagattgaat acatgggaag cacactctcc gctgtgtgtt gtctaggaga ggtgcaccct    1320
gtatggaaat atttgggaag gttaagatta agacagggta aaataaagca aaggcaaatc    1380
acaaagcaag ggctaatgtt aatatgaaaa gtgcagaatt caaggaaaaa gcatggggac    1440
aaagaagatt tttcctcttt ttggttgctg ttcatgtgta gcctacaaca gaactataag    1500
acctatagac attttatatga atatttattt gaaacgtat aatatcaaac aatgtaaaag     1560
ccaatagaaa tctcagataa ttgaatgtat agaaactagc agtttgaaag tgattagttc    1620
attatttgct gatcaagcag aaaaataagc atatgaaaga tatttaaaat gggattaata    1680
aagttgattt aacagatcct attccatgtc ctttgaatat ttatagaaat taaatggaac    1740
aaattagggc atcaggaaaa ctatacanaa gtctttacca aaaaaaaaaa tatatatata    1800
tatgtgtagt actacctata tatatacata atatatagta ctgcttatat atatatatgc    1860
ctatatgtac acatatatat atacatgtat aggcagtact atgtttctg  atcataatat    1920
gttaaattag taaaaa                                                     1936


<210> 9281
<211> 4602
<212> DNA
<213> Homo sapiens

<400> 9281
cccagctcag ctactcagga ggctgaggca ggagaatcgc ttgaacccgg gaggcagagg      60
ttgcagtgag ccaagatcgc accattgcac tgcagcctgg gcaacaagag cgaaactcct     120
tcgccaaaaa aaaagaaaaa aaataaaagc taattacaaa tacaggaaaa tggataggcc     180
atgtgtttat aagtttgagc tcttgagcca gtgacttccc tgcacgttca gctttctcct     240
ttgtgaaatg gtaatagaag cacgctgcac aaaaaattct tgtggattac atgtgagggt     300
cttagaaaca cttgatgtgt aagccaacta ttatgtatta ctgtatatgg aacacaaggg     360
atgtagccaa aactaaatgc aagtttgtgc ctcagatgtc ttcctatcag aacagagtca     420
aatccagatt ttgatgctta aatgtgacag cttattcaga tttagaaaaa cttttggtat     480
gggccaaaga aaacatatcc ttaaggggat atggcccta ggccctcatt ttccttttct       540
gtctgagcaa ttaaaaaaag cattaagtaa attccacaaa ttctttggaa tacctagaga     600
taaacagata tcatgttaac tgtatgataa taagttagaa tacttgcaac aaaatgcaga     660
gttttctagg aaaacaagta atcattcaga aataagaata tgaatagttc ctcagttctc     720
ccccttttgtg gaatttgtgc agtaaatgct gctccaaagc tctgtggaaa acagaagctt    780
cccatgaaaa atctgacaag ggtatctctc agaaagagag ctgtaatccc agcactgtgg     840
gaggctgagg tgggagtatt gcttgaggcc aggagttcaa gaccagcctg ggcaacgtgg     900
taagaccccc atctgtaaaa aaaataataa ttagccacgc gtggtggtgc acacctgtgg     960
tcccaattac tggggagact gaggcggaag aatcgcttga gcccaggaga tggaggttgt    1020
cgtgagctag gatctgccac tgcactctag cctgggtgac agtaagaccc ttgtctcaaa     1080
aaaaaaaaaa agaaaaactg cagattggtg actcttacga agatagatgg aaatgttcta    1140
aataaaacac acttaggatc tggcaatata tatatttaat gtactattct gaccaaatgg    1200
agcttaatca gatagcttga gaatgattta atgttacgaa atctgttaat tgcattatct    1260
caataataga tcggtgaata actttattat tctctcaaca aatcctgtat ttgatttaca    1320
aaatggatgg gaggtttcag ggagagcagt tggaagcctg tgtgctcacc tgttaggaac    1380
gagagtggca acagcagtgg ggaggagtgc tcggctcctg cacctgtctc gatggcagag    1440
cccacaggct tggctgacag acgtgggatg aaggaaagag aagcctctca ctcttcccac    1500
agcattgtag tgcgatttca tgcagaagtc caagcaggtt ccaggacaat tgtgtaagaa    1560
gctatggaca agaacgtcta agaaacggaa atgacataga ggatttgcac tgtagctaag    1620
acttcacgca aggctgtggc cagctgaaag catgttctgg tgctggggct gcgtggcaga    1680
gccaggagcc caggatccag cgcactgggc accgacctgg gacctggtca tctttgcgtg    1740
tggaaaagat ggcatttcca gttattgaca ggtgaatgct ggcctttag  ggaaaaaaaa    1800
atattagaat tccatacaga ataaagaatg aagatgagag gttaaaggtt tttctaaggc    1860
atgaagagct gtgggggcag cctgcccttg ttcttttttgt cgtgtgtcct tcacatgcag    1920
taactctgtt cacgcctcac aaaaacccta tgaggtggag acctgccatc aacccttcct    1980
gcacgggtgc cactgaggcc ccaaggttaa atcatttccc agagtgtatc agcagaggca    2040
cagccacaga gacacgtccg cacagagagc tttccagatc accagtaaca gcgtgagatc    2100
atggtgcaga aggtcatgag gaggatggca acgagcgaga cacagccggt tggtgctcac    2160
aaggacattg gtagatctga ctgagggcca ggtcggctag gccttcccag gtgacaggag    2220
cccagtgccg gccttggtgc acacagcgcg tccttgtgct ttctcaggag agcttcactg    2280
gggacactct gtgatgtttt tggagggtca tttggtaatg tgttcaggag ccaaaaaaata    2340
tgcataatat tcagtcttac aattacattt tttgaattta tctcaaggaa atcccaggga    2400
```

```
tctgtgtgaa gctgcacatg ctgctgctgc tcagtgcggg actgtttata atatttgtaa      2460
ctcaaatgtc cagaagaact gtacactctg tgcatgtttt cagtaagttc atatttgtaa      2520
gaaaaagtgg gtgtgttgag agacaaattt ttgtgtacat ttacctggaa acaagcagta      2580
gtacacatat gcatgcatga agtggtgttt tcctgagtgt taagattgtg aatgttttat      2640
tatgatcatt tctacttttt ctattggaaa atactttgtg taattaaaac atgaagatgg      2700
agctaccatc aaaatggtga gcaatagagc actgttcctc ctggggtggc ctggtgggcc      2760
tgagggactc aggtggtgat gaggagtggc cttgagtccc tttcctttcc atgggacagt      2820
ggggacgaga gctagagtga tgaggcaggt taagtgtgtg cctacctccc tgtggctgga      2880
gcactgttgt ggccacccccg ggaccccctg agcctggtgt cgccctggct tgctggtccc      2940
agcctaggga gtgggcccct atgggcagag ggtgaggtgg ctgtgctggc actgcagctc      3000
aggcacacac acactggagt gttccaatgg gtgatcaggt tggatggagc cttgaaatta      3060
agtcagtgat gtaattttta taatctgttt cactttaaaa caaaaatctt tgcacacctg      3120
gtccaagttt tctccccttt cttcctgttg ctgccatgat gaaagcagaa gggaccaccc      3180
tccagggaga gcagcaggaa gggagatgcg ggtaggggcc ctgggtcagc aggggcggtc      3240
agtccggagg tgcacccccca tttattcctc gttctggaag agatttctag tcacatgcat      3300
gtggctcctg tgccacatgt gtcatgaggt gcccaggtgg gtttggattt ggatgagggc      3360
atctttgagg atgcaggggc tttgtcatac cctgtgggcc ccgtgtacac ccctgggggca      3420
gatgtggcct ctaacagggg agggtgcgtg gatctctaag ccggggagga aagcagattg      3480
cagacttgcc gaagtgggag ctgtctgctc ttgtgttttc tttaggggca ggagaatttt      3540
gcccagcagt ccctcgtggc tccctccaca ccactgaccc ttacgcatcc aaggttggag      3600
ccctggcagg taaagggtga gcaaggtgca gttgcctgtg agcagctgtg gaggggcctt      3660
tcctgttgta cacttcctgt gagggtctca gacccccttgc agactctgga catcacttcc      3720
tagaggggcc tgggctcctt tagtcctgtg agtaaagctt tggttttgat gactgtctca      3780
gggaaaggta gaaaggtgct tggtggcagt gaacttcctg ctgcagaagt gggtgtgacc      3840
ccagtgctgg agaatgggct gtgagccgag tttcccgcac ctgcatgagt gagcgccatg      3900
gtccttctcc acagagcgtc ctgctgtcac tttggtttgt gttaactttg acgcctttct      3960
tgtttcttac tctgctttcc tgcatggagc acacagcccc ggctcccttt cagtctgcat      4020
ggcagacacc tggcctctgc aggtccagtt cattctgtgt ccccttttcgg tcgtccctat      4080
gttgccgtca ggtgattgag ggtgaaggtc ggccttggca gcccagtgga aagtcccttg      4140
actcctggcc gtcagtggca ggtctccagc ctttgggagg aggaaacttc tatttaacaa      4200
agaaatggaa ttgactttgc cacacacagc cagagcgatg atttgtagag ccaacctgct      4260
gagacattca aagcatcagt cgtagggtca ggaccgccag gtgaggtgtg gctccacctg      4320
cagcagcctg gggcaggttg cctagcctct ggctttagca tccccttctg tgaaatgggg      4380
aaagtgatgg gacctggctt tgtagggtgg ttgtgaggac ctacaggggt ttttgcaaaa      4440
tacttagccc agggctgact aaaagattca gagacgctgg gcatggtggc acacacctgt      4500
agttccaggt actcgagagg ccgaggcggg aggatcactt gagcccagga attaaagtcc      4560
agcctgggca acatagtgag accttatttc ttaataaaaa aa                        4602
```

<210> 9282
<211> 166
<212> DNA
<213> Homo sapiens

<400> 9282
```
actgattctt tttttttgt ttttttttga gatggagtct tgctctgtcg ccccggctgg        60
agagcagtgg cgcgatctcg gctcactgca agctccgcct cccaggttca cgccattctc       120
ctgcctcagc ctcccgagta gctgggacta caggcgctgc cgtgcc                       166
```

<210> 9283
<211> 10719
<212> DNA
<213> Homo sapiens

<400> 9283
```
acagtccccca ctgacgggag cagcagaaat gaggtgagtc ctcgcccttc ctggcaggga       60
tcctggcccc ttcccccggg acagcttgcc cacctggccc tggccttggc cccttcccag       120
tctgcattct gtgtccagcc tgtgctgctc tgtggcctct ccttgagggc atacagacag       180
ttgagaacca gcctcatgca ggccccacac catgttctcc aggaggaaca gtcattgagc       240
ttctaagtct ggacacctca ggagggtcag ccacaggggg cacccactgg tcaggtgtat       300
```

6888

```
aagttcattt agggctcgta gttcctagtg aagccgagcg gtgccgtttt gcacataagg    360
aagcagtgac ggggacagca cagtggccca tctgcctctt gccttgctct tcaccaggat    420
gcctggtgtg tccctccatg gccaggcttt acagaacgca gtcccacctg gagcagccac    480
tcggacccag cagccccca ttgttgcctg ctccaagcct cacatctaac cctagctgcg    540
gctgtctgct gggaagagcc aagtccatag ggccctttgg gcacatggcc aggcctctga    600
ccctgtggct gctctctagt tctcaggccc aggcaggatg tcagtgcagg atggagcccc    660
gccctaccaa aggcttccag gtgggcatga gctcacaggc aggccaggga gtagggaaag    720
gctgccctgg aggaggccac cattggtgca gattcttggt ccctctacc cccactgctc    780
caagaaaagg tggcctaggg gcattataga ttgggaattg aggggttgga gtgttagttc    840
atgccctggc ctgggaatgg gaccgcccta ccaggttcgt ctccctgcca accccagtcc    900
cttccagtgc tctcctttct ttcccaggag accccagcag ctccaacacc cgccggcgcc    960
actggaggca gctcagcctg gctagacagc agctctgaga atagggggcct tgggtcggag   1020
ctgagtaagc ctggcgtgct ggcatccag gtagacagcc cgttctcggg ctgcttcgag   1080
gatcttgcca tcagtgccag cacctccttg ggcatggggc cctgccatgg cccagaggag   1140
aatgagtata agtccgaggg cacctttggg atccacgtgg ctgagaaccc cagcatccag   1200
ctcctggagg gcaaccctgg gccacctgcg gacccggatg gcggccccag gccacaagcc   1260
gaccggaagt tccaggagag ggaggtgcca tgccacaggc cctcacctgg ggctctgtgg   1320
ctccaggtgg ctgtgacagg ggtgctggta gtcacactcc tggtggtgct gtaccggcgg   1380
cgtctgcact agtgaagccc tgggctcttc ccaccaccca tctgttccgt tcctgcagta   1440
cacctggccc ctctccgaag ccccttgtcc ctttcttggg gattgtggag gctgggtcag   1500
aggggagtta agggactgca ggcctggcag caggacatgc cttggctgaa ccaagtcctg   1560
agagcagcat ctctgtcccc acggtgcctt gtgtgggtcc ccgtccttgg ctttctgggt   1620
cctgggctgc ccccagtgct ccagaccttc cccactggca atccaggtta tcatccatgt   1680
cctccagagg agcttcctcc tccaggcctc agccctgttg gcccaggtgg agcaggaggg   1740
accactggaa catgtggtgc ttgggaatgc ctctcctgtt gcattggtcc ctgaaggcct   1800
cagggcaggt atgtggtgtg tgggcgactc cacaagacct gcctcccatc ctggcagccc   1860
agcctgagac cgttgcattg aggcaggcag gagcggcagg gtggctgctc tccaggagcc   1920
caactgcctt gagttcctgc cccactgggc cccctcccct gctgggcaat cctgggaagg   1980
tctggaggtt cctgtggacc tcagggaagc caggggcagc tgtcaggcct gaggaagacc   2040
tgtggagctc ctctccagcc tcctctttcc ctccctctg gtctccattc tcttcagctc   2100
cctacatggg ctggggagga gacacctggt gggcagagct caggcagagg tttggattc   2160
agctccctca cttccggggc tgtgtggctt tggcagatgt cagacttctg gtcttgcttc   2220
tccacgtgga cagtgagtat ctggctcatt cttcactggg ttcttctgag attgaaccta   2280
caggtgtttg ccaagtgcct ggcccagagc aagtggccac tgcttctccc atctctctcc   2340
tgcccaacct ggtagagctg agggcatgag aggcagagtg cacagtggtc aagggtgcag   2400
ctctgcagca caggcagcct aggcctgcgt cccaacctgc ctctcaccag ctctgtgacc   2460
ttgggcaagg gatttatctg tctgtccctt agtttctca cctgtaaaag gaggataagt   2520
atatatatat atttcccagt gttgtgaaga ttaaaggagt ttatcgatgt aggtcttagg   2580
atgagtcctg gcatttacca agggttggat atatgttatt atcactatta agtgttgagg   2640
gtccaggcat gctgggcaac agggacccca tctctacaaa aaagtttaaa aaattagcca   2700
ggcgtggtgg tgcacctgtc gtcttagcta cttgggaggc tgaggtggga ggatcacttg   2760
agcccagaag cttgaagctg cagtgagcta ggatcgtgcc actgcactcc aacctgggtg   2820
agagagcgag accctgtctc aagaaaaga aaaatgcaga gaaacaggag tcttggctac   2880
tcctttagag gcagactcag accctcctgc ctcacagctt tatctttgta tttgcccctt   2940
actttatctt gtgccttgag aaattgctgg ggagagaggt atgtccactg ggcagctgta   3000
caggatggag gatataggc gtttccactc ccagcagcca ggttccctca ccccaagctc   3060
acccactgtt ggggagatta tctacaataa caccagaaac acattggggt ggattggggg   3120
tatccttatg ggttcttttc agggaaccat tgctggacaa ggcacaggag ccacctccat   3180
ttctgagctc tgcaagggac aagaactaga gccatcaggg gctgggctca ctgtggcccc   3240
accccaagcc gtcagcctcc agggatctac accctgcctt ggctgctaca gcttttttcac   3300
tccactgccc taggggagtt cagcaaccta atgatctcta tctctgaaca tctcttcatc   3360
ccatgctcca agtccagcaa cctgcaccct ggaaccagga gtggacccta cccgagctgt   3420
ctgtattaat ccccatcccc caccaccaat cttaaaaagc cctctgtccc cctaccctaa   3480
accccagtta ggtacccatg ctgggcaggt cagttaacaa tttatgcaca ggtactagtt   3540
ttattgtatt accgttccag ggtagctttg aaaaaagtat ctcaaaaagg caacatgggc   3600
cgagcgcagt ggctcacgcc tgtaatccca gcactttggg aggccaaggt gggcagatcg   3660
cctgaggtct ggagttcaag accagcctgg ccaacaggt gaaaccccgt ctctacaaaa   3720
ataagaaaat tagccaggtg tagtggcaga cgtctgtaat cccagctatt caggaggctg   3780
aggcacgaga attccatgaa cccaggatgc ggaggttgca gtgagccgag attgtgccac   3840
tgcgctccag cctgggcgac agagtggtat tctgtttcaa aaaaaaaaa aaggcagta   3900
tgtagccccg aagactgttg cccaagtggt agaatgttag cacactacca gcctaggtaa   3960
```

6889

```
aaaatacaaa aagtaactgg gcatggcggc gcccatctat agtcccagct acatgggagg   4020
ctgaggtggg aagataagtc acttgagccc gccaggaggc ggaggttgta gtgagctgag   4080
atcgcaccac tgcactccag cctgggtgac cgagtgatac tctgtctcaa agaaaaaaaa   4140
ttataatttt agcacagtaa ccagccatga tgggagatac cctgggtaag gcatgtagaa   4200
agggttgagg gaccttccca gtcccctagc cccgcctccc atcctcccat ctttttcttt   4260
tttctttttt ttagagaatc acccagcctg gagcgaagtg gtgcaatcat aactcactgt   4320
atccttaaac tcccgggctt aagcgatcct cctgcctcag ccttctgagt aactaggact   4380
tcaggtacct gtcaccatgc ctggctaatt aaattttttt ttcttttttt tttttgagat   4440
ggagtcttgc tctgtcaccc aggctggagt gcagtggcgc gatctcagct cactgcgacc   4500
tccacctcct gggttcaggc cattctcccg cctcagcctc cagagtagct gggactacag   4560
gcgcctgcca ccacgcctgg ctaatttttt tgcacttttta gtagagacgg ggtttcactg   4620
tgttagccag gatggtctcg atctcctgac cttgtgatcc gcccgcctcg gcctcccaaa   4680
gtgctgggat tacaggcgtg agccaccgcg cccagccaaa ttaaattttt tatagagatg   4740
aggtcatgct gttatgttgc ccaggttggc ctcatgagat cttgccttag cctcccaaag   4800
tgctgggatt acagatgtga gacactgcac ccaaacccca ccactttttt ttttccttttt   4860
tcttttttttg agacagtctt actccgttgc ccaggctgga gtgtagtggc atgatctcag   4920
ctcactgcaa cctccgcctc ccgggttcaa gcaattctcc tgcctcagcc tcccgagtag   4980
ctgggattac agaggcctgc caccacaccc gactaatttt cgtattttta gtagagacgg   5040
ggtttctcca tgttggccag gctgttcttg aactcctgac ctcaagtgct ccacctgcgt   5100
tggcttccca aagtgctggg atacaggagt gagccactgc gcctggctga tcccagcact   5160
tttcaaatga tgccgctcaa agccgtgact tggcctactt tgaacagcaa acttgttgct   5220
gctgttgtca acctgaaggc ctctcaaatg ccagcttcaa gcagggtgtg aattggccag   5280
tgtcagatct caggagtcct gtgttgagag tgtggctttc agctgcgggg agctgcactt   5340
ggtgggggaaa gccaggcagg tcaccctcac agccagataa tgtggaggtc agaacccaag   5400
gaagggagtg agacctccac tcccagtggg ggacctggcc acccatcctt ggggacctga   5460
gaaagcgtac ttcaccttgg ggtgaaggct gggtggggcc agagggacca gtgccctcct   5520
cagtgcttag gggcagagcc acctgcagca atggtatctg catattagcc cctctccacc   5580
ttctttctcc cgctgaatca tttccctcaa agcccaagag ctgtcactgc ttctttctcc   5640
ctgggaagaa tgcgtggact ctgcctggtg atagactgaa gccagaacag tgccacaccc   5700
tcgccttaat tccttgctag gtgttctcag atttatgaga cttcttagtc aaatatgagg   5760
gaggttggat gtggtggctt gtgcctgtaa tcccagcatt ttgggaagcc gaggtgggag   5820
gatcccttga agccaggagt ttgagacaag cctgggcaac aaagcaagac cctatctcta   5880
aaaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa atctaggaga tgctctttac   5940
cctgcctggc ctcaaactat taatagcttc ctttgagcaa cattatttat tatgaacttt   6000
caaacacaaa aaagtagaga gagtagaata acaaatcccc atgagcccat cacccaactt   6060
cagtaattat caattcatgg ccatcttgtt cacccctgcc tgcttccctg cttcccctca   6120
ttctgcagag gttcttttct tttgagacag agtgttgctc tgttgcccag gctggagtgc   6180
agtggtgcaa cttcggctca ctgcaacctc cgcctcccag gttcaagtga ttctcctgct   6240
tcagcctctc aagtagctgg gattacagat gcccgccacc acacctggct aattttcgta   6300
tttttgttag agatggggtt tcaccatgtt ggccaggctg gtctcgaact cctgacctca   6360
agtgatccgc cgccttggc ctcccaaaat gctgggatta caggtgtgaa ccacggtgcc   6420
tggccactgt acaggttatt tatagaagtt ggagagtgaa gggttgagaa agccaggggg   6480
cagatgcggg tctggaggat tttgtgccta aggccctctc tttgctccca gacagcatga   6540
agtaacaatg aggcatccac ctcttggttt tgtggcctct gtggatgacg tctctcacct   6600
tgaaccagtt cagagttgga gtagcgcagg atcctgtctt cagaggaggg gccgaagcgg   6660
gttcctctgt tgtcaagctc tttggaggtg cctggctgct actactgtcc cagagaggtg   6720
atgatgaatg atgggtgtgt ccagtggcag tttgccccac tgaggcaggg gcttccacta   6780
ggccctgaca gagcccttcc agcaggcaga aatccctgtg ctaggcaaga ttcaaactcc   6840
gtagcatgtc tcctgctccc atctcttagg aatggagtcc ttcaggcctt gagtcccaca   6900
ttttccatga tgctccatta agcagctgat agcacccca cctccaggga aagtgagttc   6960
agagtccttg gtctaatgca tctgtgttga aattgaggcc ttccctgtg ttcacctttc   7020
tgctctttttt cttttagccc aaggctatga aggcctcatt cggtgctggg catggtcact   7080
cctagcattc ctcactctgt tgctaacagc aacagcaata ataataaggg ttacaactta   7140
ctccatacct tactgtctgc caggcattaa gctaagtgct ttacatatat taagtcattt   7200
aatcctcata atgaccctat gaaagagata ccatctcaac ccaattgaca gctggtttgc   7260
aagattagga gggatgaagg acccagggga caatgcgagg gaaaactctg accccggggc   7320
cccaggctgg atgttcttta tgcctgtgaa ccacagctta tcacatgtct ggagttaggg   7380
accccactta aagtgagatt ttggctggag gtggtggatc atacctataa tcccagcact   7440
ttgggagacc aaggcagaag gactgcttga ggccaggagt tcaaaaccag tgtaggtaac   7500
agctagaccc tatctctaca aaaaatttaa aaattagctg ggtgtggtgg tatgtgcctc   7560
aagttccagc tactcaggag gctgaggtgg gaggatcact tgagcacagg agtttgaagt   7620
```

                                          6890

```
tacagtgagc tatgatggca ccactgcact tcagcctagg caacagaggg agaccctgtc    7680
tttaaagtac atagaggttt ttcacaccaa cacatctctg cccagtgtgc caacatctgc    7740
cacctgctat aatagtacta taacactcaa tatgtaatta atgtagtctc agggatgtta    7800
tgacaatatg attacaacta tcacgtgtgt gcccagccag gctcaatgcc ccaggctggg    7860
cgaggtgggg cagggacac agcctaaaat gccaggcctc aggaagccat ttggtttagc      7920
agacattgtt tattaaagga gttacctatg ccagatcgaa ggcctaagat gattaagaca    7980
ctatgagtgc cttcaagtgg ttggggacgt tcatgattgt ggtacagaca aataggcttt    8040
cacatcattc ttttatgtaa tcatacaaca gatatttgca cctacatgtg cagagcactg    8100
tgataggcct cagtgacaca gaataatacg gcaaagaccc cacccgatga gcccccctccc   8160
accacccacc agtacagtag ggggtggttt aatggagtgt tcctggaata tgaagtgggg    8220
gcaggcatta ggggtggcaa agggacaagt gtttatctga tcagttatgt actgtttata    8280
ataagtaaat cagcagaggg ggaataatac ttagaaccta tagagagtaa atctgacaag    8340
atgaaatgct gatgaaaata tggaggaaat gaaactctca tgggttttgc agggaatcta    8400
agtcagtgct gtgttgtgaa tgtaggtgta ccctttgaat tcatatgttg aatcctaacc    8460
cccaaagcaa tggcattaag aggtggggcc tttggggctg ggtatggtgg ctcatgactg    8520
taatcccagc actttgggat gctggcaggg ggcagatcac ttgaagccag gagtctgaga    8580
tcagcctggc caacatggtg aaaccccatc tgtactaaaa atacaaaaat tagccaggtg    8640
tgatggcgta catctgtaat ttcagccact cgggaggctg agacaggaga atagcttgaa    8700
cccagtaggt ggagatttca gtgagccgag atcgtgccac tgcactccag cctgggtgac    8760
agagcgagac tccatctcaa aaaaataata aagatgtggg gcctgtggga ggtggttagg    8820
tcatgagggt ggagatcatg aatggggtta gcaccttata aaacaggctt gagggagccc    8880
ttctgtccct tctaccatgt gtggatgcag tgagaaggca ccgtatctct gaagcagaga    8940
gcccgccctg gacactggat ctgctggcac cttgatcttg gacttcccag cctctagaac    9000
tgtgagaaat aatttttgt tgtttacaaa ttacccaggc taaggtgttt cattgtaacc     9060
tgaatggacc aagctggtgt gaccctgttg gaaaactggc agtatctacc aaaagccgaa    9120
catacgtata aactgatcca gcagttccac tcctgggtat gtacaccaca gaaagctatg    9180
tccaccgaga cattggcaag aatgtttcta accacacgct gactgtagcc ccaaacctga    9240
aacaacccaa atgtccatcc accaacccaa atgtccatcc acagttgaag ctacagtgaa    9300
gtcacagggt cgaatactac tgcacagcaa cgaatatgaa tgaaaatatc gctatgcaca    9360
gcaacatgga taaatttcac agacatgagg tcaagcaaaa gaggtcagag tcctcatcat    9420
caagagagaa ttcattgtat gattctcttc ctacaaaaag tacagaaata agcaaaactg    9480
atccatggtg ttagaagcca ggggaacagt taacagggga gggatactgg ggaggggcat    9540
cctggagtgc tggtctacct catctgggtg ttgatttcac gagtattgtc agtttgtttc    9600
cagactccct gttggagatg tggaaataaa aaccacctaa acaagagcag agaggccatt    9660
tggtcaaagt ttgcaaagga gtcagccatg attgcttgta tttggcaggg gtcaaaggca    9720
ggcagggact gtgaaatgtt atagtggaaa aaaagggaag gctctgggtg tgctgtgatt    9780
ggagattgtt ggcatgggga cagagcggac taactggagg ggcatctttg gttggttggg    9840
ggggtatatt tggctttctc tggttggtct ggagttggaa gaggggtgt ggtggctggg      9900
gattgggaag aagctggcag ccactaagtt cagactgttc tgggtccgat tgctgctgag    9960
gctgtggttt ggcttccttg gcttcccagg ctggtcatgg gtttctggcc agagtctatt   10020
gtcatatgtg gcctggccat tgtccagttg tatgttcagt ctcttggaag gaagggtatt   10080
gactctgaga ggggccacca tcgctggaat gggggacaca cagtacttcc tccagctgcc   10140
tacacccccc tagggtcagt ggcgcctgcc tgtgagggtg agcccaatgg ctagagggct   10200
ctgctccaag tcattgctta ctacacccac aaacattctt cgttctttaa ggcctaactt   10260
aaagcccaga tcctacagga aaccttgatt agaccctct ctttattaag cttcctaaga    10320
tcaaaccctg cttttgtgta aatgctgacc tccttgccta cattttaaaa acctagagct   10380
gggcatgatg gccccagcct gtaatcccag tgattcagga gactgaggtg ggaggattgc   10440
tagaagccag gagttcgaga ccagcctggg taacatagct agaccacatc tcttaaaata   10500
aaatagttaa tttagccagg catgatgata tatgcctgta gtcccaacta cttggaaggc   10560
tgaggtgtga ggatctttga gcccgggagg tcgaggctac agtaagctat gatctcacca   10620
ctgtactcca gcctgggtga cagagcgaga cccagactca aaaaataaaa ataaaaaccc   10680
tgaatatctt ccttctactt cttcagtgct gttttatt                           10719


<210> 9284
<211> 504
<212> DNA
<213> Homo sapiens

<400> 9284
atagactccc tccctagacg ggaggactga caggcacagt gcagtggggc tgggtggaga       60
```

6891

```
tgagcgagat aagtagggcc attttttgcgc tctgccaaag ggactgtagg gaacagccag    120
ggcctatagg gcagtgggag agggacagtg aagggctgca tcagctgttg gcaggggaac    180
ctttaggcac tgtcttaccg cagagatctc cagttcccag tgaatcatga aaacttctca    240
gtccccagag gaagtaaggt cttcatcatc cagtggcctg gactcaactc cagatgtcag    300
tgctcccccct cagaaatata tagttgtcca tctggacctc tcaggccagc atgtctcttt    360
cctacttccc aaactattcc acatgacgct ggtgcccagt cagccctcag tgccctggga    420
cagccacaag acacatgagc agttagaggc tgggagacgt catcttagta cttttgtcat    480
ccccaaactg ctccaagcac ctgt                                          504


<210> 9285
<211> 517
<212> DNA
<213> Homo sapiens

<400> 9285
caggcaaaat gaagggaagc cctgggttct tgtcctgcat ccgcagccag ctcccacttt     60
cctcaccctc caggacctgt aaactgtgag gctggaccag ttatgtcaaa tctgtcctcc    120
cccagagctc agtccctctg cccttgggtg tccttggcac aaggcaggct aggctgcacc    180
agcttcctcc atctccgtcc tgcctccccc atcccaggt gccattccca caccatctga     240
atcactgatt tcctcgcaat cagacgctat cttccagtta atcacttcgc ttgtatttaa    300
cataagaaag aaaaacccctt tcattatcac atacagctgg aaatcggctt cttgcaggag    360
gcgtatccaa aggaattgga gaagagataa actggtaatt ggtgaaagaa ttactttaat    420
ttttttttcct acttgctgtc atgatgatgt ccttagaatt gtgagcccgt ggacacttct    480
gtacaataaa tctgctatta ttacttctag aactaca                           517


<210> 9286
<211> 102
<212> DNA
<213> Homo sapiens

<400> 9286
gaggttgcag tgagctgaga tcacgccact gcactccagc ctgggtgaca gagcaagact     60
ccatctcaaa aaaaaaaaaa aaaaaaaaaa aaactaataa tc                     102


<210> 9287
<211> 109
<212> DNA
<213> Homo sapiens

<400> 9287
ggcgtgaacc caggaggcgg agcttgcagt gagatgagat cgcgccactg cactccagcc     60
tgggcgacag agcaagactc catctcaaaa aaaaaaaaaa aaaaggac                 109


<210> 9288
<211> 131
<212> DNA
<213> Homo sapiens

<400> 9288
ggaggctgag gcaggagaat ggcgtgaacc caggaggcgg agcttgcagt gagctgagat     60
tgcgccactg cactccagcc tgggcaacag agcgagactc cgtctgaaaa aaaaaaaaac    120
aaaaactggt g                                                        131


<210> 9289
<211> 91
<212> DNA
```

<213> Homo sapiens

<400> 9289
cccgggaggc ggagcttgca gtgagctgag attgcaccac tacactccag cctgggcgac   60
agagtgagac tctgtctcaa aaaaaaaga a   91

<210> 9290
<211> 98
<212> DNA
<213> Homo sapiens

<400> 9290
cggagcttgc agtgagccga gatcgcgcca ctgcactcca gcctgggcga cagagcgaga   60
ctccgtctca aaaaaaaaaa aaagaaaacc aagttaga   98

<210> 9291
<211> 135
<212> DNA
<213> Homo sapiens

<400> 9291
agactgagca ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag cagagattgt   60
gccactgcac tccagcctgg gtgacagagg gagattctgt ctcaaaaaaa aaaaaaaaaa   120
aaaaaaaaaa gaatc   135

<210> 9292
<211> 125
<212> DNA
<213> Homo sapiens

<400> 9292
ctgaggcagg agaatggcgt gaacccggga ggcggagctt gcagtgagcc gagatggcgc   60
cactgcagtc cagcctgggc gatagagcga gactctgtct caaaaaaaaa aaaaaaaaaa   120
aaatt   125

<210> 9293
<211> 108
<212> DNA
<213> Homo sapiens

<400> 9293
tggcgtgaac ctgggaggca gagcttgcag tgagctgaga ttgcgccact gcactccagc   60
ctgggcaaca gagtgagact ccatcttaaa aaaaaaaaa aaaatata   108

<210> 9294
<211> 101
<212> DNA
<213> Homo sapiens

<400> 9294
cagagcttgc agtgagccga gatcgcgcca ctgcactcca gcctgggcga tagagcgaga   60
ctctgtctca aaaaaaaaaa aaaaaaaaaa aaaaaagag t   101

<210> 9295
<211> 87

6893

<212> DNA
<213> Homo sapiens

<400> 9295
ccgggaggtg gaggttgcag tgagctgaga tcgcgccatt gcactccagc ctaggcgaca   60
gagtgagact ccatctcaaa aaaaaaa   87

<210> 9296
<211> 116
<212> DNA
<213> Homo sapiens

<400> 9296
agaatggtgt gaacccagga ggcggagctt gcagtgagct gagatcgcgc cactgcactc   60
cagcctgggc gacagagtga gactctgtct caaaaagaaa aaaaaaaaa aaagaa   116

<210> 9297
<211> 162
<212> DNA
<213> Homo sapiens

<400> 9297
agctacttgg gaggctgagg caggagaatg gcgtgaaccc gggaggcgga gcttgcagtg   60
agccgagatc ccgccactgc actccagcct gggcgacaga gcgagactcc gtctcaaaaa   120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagaaca aa   162

<210> 9298
<211> 129
<212> DNA
<213> Homo sapiens

<400> 9298
gaatggcgta accgggaggc ggagcttgca gtgagccgag atcgcgccac tgcactccag   60
cctgggcgac agagcgagac tccgtctcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa   120
aaacaaaga   129

<210> 9299
<211> 616
<212> DNA
<213> Homo sapiens

<400> 9299
aagagacgga gtctcactat gttgcccagt gcctaggctg gcctcaaatt cctgggctca   60
agtgatcctc ctgcctcagc cttcagagta gctgggatta caggcatgca ccacactgtg   120
cctggctcat ctcattttct agaatggata tattgacaaa gaaaagagaa gaaataagaa   180
atgcaaaaaa tgcaccttca ccatatggcc ctttagctaa aagctacaaa gctaacaagg   240
gtgtgccatc agaactatcc atgtacatgt acagagatga ttttaacagc tgccatgtga   300
catgtggctt aaagtcaccc tgagtctact aaatggttgt gttgtcaata tatctaaata   360
tggctacgtg ctctccagag tgttcccatg atcaccacgt cctttgatca gtgccatctg   420
gaagagcaga tgagtgcagc cctcctctca tcctctctgt gctggctccg aacgcttgct   480
tacagaccca ccaacaacca agaagctgca ctggttggta cacactgcag caaacaagga   540
aaacaagtag ataaaaagtc caacatcaaa aagaaaaaaa aaccatagaa acaattgaag   600
agagaatggc taaagg   616

<210> 9300
<211> 140

<212> DNA
<213> Homo sapiens

<400> 9300
ggctgaggca ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag tcgagatcgc   60
gccactgcac tccagcctgg gcgacagagc gaaactccgt ctcaaaaaaa aaaaaaaaaa   120
aaaaaaaaaa gaggggaaaa   140

<210> 9301
<211> 114
<212> DNA
<213> Homo sapiens

<400> 9301
gaggcaggag aatggcgtga accctggagg cagagcttgc agtgagccga gatcgcgcca   60
ctgcactcca gcctgggcga cagagcaaga ttccgtctca aaaaaaaaa aacg   114

<210> 9302
<211> 63
<212> DNA
<213> Homo sapiens

<400> 9302
ccactgcact ccagcctggg tggcagagca agactccatc tcaaaaaaaa aaaaaaaaa   60
aat   63

<210> 9303
<211> 616
<212> DNA
<213> Homo sapiens

<400> 9303
aagagacgga gtctcactat gttgcccagt gcctaggctg gcctcaaatt cctgggctca   60
agtgatcctc ctgcctcagc cttcagagta gctgggatta caggcatgca ccacactgtg   120
cctggctcat ctcattttct agaatggata tattgacaaa gaaaagagaa gaaataagaa   180
atgcaaaaaa tgcaccttca ccatatggcc ctttagctaa aagctacaaa gctaacaagg   240
gtgtgccatc agaactatcc atgtacatgt acagagatga tttttaacagc tgccatgtga   300
catgtggctt aaagtcaccc tgagtctact aaatggttgt gttgtcaata tatctaaata   360
tggctacgtg ctctccagag tgttcccatg atcaccacgt cctttgatca gtgccatctg   420
gaagagcaga tgagtgcagc cctcctctca tcctctctgt gctggctccg aacgcttgct   480
tacagaccca ccaacaacca agaagctgca ctggttggta cacactgcag caaacaagga   540
aaacaagtag ataaaaagtc caacatcaaa aagaaaaaaa aaccatagaa acaattgaag   600
agagaatggc taaagg   616

<210> 9304
<211> 98
<212> DNA
<213> Homo sapiens

<400> 9304
tgtgaacctg ggaggtggag cttgcagtga gcggagatcg tgccactgca ctccagcctg   60
ggtgacagag tgagactcca tctcaaaaaa aaaaaagg   98

<210> 9305
<211> 121
<212> DNA

<213> Homo sapiens

<400> 9305
ggctgaggca ggaaaatggc atgaacccgg gaggcggagc ttgcagtgag ctgagatcgc   60
agcactgcac tccagcctgg caacagagc gagactccat ctcaaaaaaa aaaaaaaaaa   120
a   121

<210> 9306
<211> 108
<212> DNA
<213> Homo sapiens

<400> 9306
ctgaggcagg agaatggcgt gaacccagaa ggcggagctt gcagtgagcc aagatcgtgc   · 60
cactgcactc cagcctgggc gacagagcga gactccatct caaaaaaa   108

<210> 9307
<211> 95
<212> DNA
<213> Homo sapiens

<400> 9307
ggaggcggag cttgcagtga gctgagattg cgccactgca ctccagcctg ggcagcagag   60
cgagactctg tctcaaaaaa aaaataaata aataa   95

<210> 9308
<211> 115
<212> DNA
<213> Homo sapiens

<400> 9308
ggctcaggca ggagaatggc atgaacccag gaggcggagc ttgcagtgag ccgagatcgc   60
accactgcac tgcagcctgg gtgacagagc aagactccat ctcaaaaaaa aaaaa   115

<210> 9309
<211> 93
<212> DNA
<213> Homo sapiens

<400> 9309
gagctggcag tgagccgaga tcccgccact gcactccagc ctgggcgaca gagcgagact   60
ccgtctcaaa aaaaaaaaa aaaaaaaga aaa   93

<210> 9310
<211> 136
<212> DNA
<213> Homo sapiens

<400> 9310
ggcaggagaa tggcgtgaac ccgggaggcg gagcttgcag tgagccgaga ttgtgccact   60
gcactccagc ctgggcgaca gagtgagact ccgtctcaaa aaaaaaaaa aaaaaaaaaa   120
aaaaaaaaaa aaaaaa   136

<210> 9311
<211> 138

<212> DNA
<213> Homo sapiens

<400> 9311
cgggaggctg aagcaggaga atggcgtgaa cccaggaagc ggagcttgca gtgagccgag   60
attgcgccac tgcactccag cctgggtgac agagccagac tcggtctcaa aaaaaaaaa   120
aaaaaaaaaa aaaagaaa   138

<210> 9312
<211> 40
<212> DNA
<213> Homo sapiens

<400> 9312
tgagactccg tctcaaaaaa aaaaaaaaaa agtgaaaagg   40

<210> 9313
<211> 122
<212> DNA
<213> Homo sapiens

<400> 9313
cgggaggctg aggcaggaga atggcgtgaa cccaggaggc ggagcttgca gtgagccgag   60
atcgcgccac tgctctccag cctgggcgac agagcaagac tctgtctcaa aaaaaaaaa   120
ga   122

<210> 9314
<211> 616
<212> DNA
<213> Homo sapiens

<400> 9314
aagagacgga gtctcactat gttgcccagt gcctaggctg gcctcaaatt cctgggctca   60
agtgatcctc ctgcctcagc cttcagagta gctgggatta caggcatgca ccacactgtg   120
cctggctcat ctcattttct agaatggata tattgacaaa gaaagagaa gaaataagaa   180
atgcaaaaaa tgcaccttca ccatatggcc ctttagctaa aagctacaaa gctaacaagg   240
gtgtgccatc agaactatcc atgtacatgt acagagatga tttttaacagc tgccatgtga   300
catgtggctt aaagtcaccc tgagtctact aaatggttgt gttgtcaata tatctaaata   360
tggctacgtg ctctccagag tgttcccatg atcaccacgt cctttgatca gtgccatctg   420
gaagagcaga tgagtgcagc cctcctctca tcctctctgt gctggctccg aacgcttgct   480
tacagaccca ccaacaacca agaagctgca ctggttggta cacactgcag caaacaagga   540
aaacaagtag ataaaaagtc caacatcaaa aagaaaaaaa aaccatagaa acaattgaag   600
agagaatggc taaagg   616

<210> 9315
<211> 4802
<212> DNA
<213> Homo sapiens

<400> 9315
tttaatttca aacgttaata tattttctat tttatattgg acatatgcat ctgtaacccc   60
tcatttgcag caactatcac atcctcataa aaggggcaaa atttgtaaga tgcctcttaa   120
aataaatatt ctttttata aaataataaa acttcaaata aatattcttt acactaaaca   180
atatgttgaa aaaattagaa aataaaggtt gaattttact gtaactgtac aatatacatg   240
aagtccaaag ggaaatcaga gtcttacaat aaaggctttc tgtaaggcaa aatacaatct   300
aaaaacatac tgattgattc acattcttcc gaatgtacaa catattagta taatatttg   360
tgtctgtgcc atgtagtatg gcacaacttg tttttcacag ttgcaaatat tattgtatat   420

```
acaaaaatat agcacattct ctctggagaa aacaatggaa aaaagtcatc tgctaatta     480
caagttttgc aagtactatt cacaaacaaa aactttgcct aggagtgtct gtgttgcttt    540
agcttatgca atacatgggt caccaagttc tgtatctcat actttgagct ccattagctg    600
agttctaaca agcatatcag ttaaaacggc acatggacaa aaagcatttc accgcaaaca    660
gcaaagacta tcccaacttt ctattaacag tgccaagatt ataactgttt agttggttgc    720
atatgtgtat taaaaaaaga cagaaaaaat cctcattact gtaatattcc tgattaatga    780
tgctatgttg gttttttcaaa gttcctaggg gggacagtgg gaactttgca gcaaactgtg   840
tttgagtttt tacagcggca accaggcctg ttaacccggt cataacaccc ctggcacaat    900
ttaaggcaac ccttggctgg aaggtaacac cataaacaag gcaaaaagag ggacatgaca    960
cccatggctg accatcgtgt acaacagtga gactggctgc aagaacatgg gttgtcagca   1020
cagttgtcct catcatcatt agaacagtga tagaagagac ctttcacaca gcatacacaa   1080
gtcccatagt caatcacgtt ctgggccgag caaaggcact gcttgtcgca gatccagtct   1140
gatggcagag gccttgggta ggtgcactcc ttacatttgc acttgccaca gtcctcacac   1200
ctgtaggcgt gcaggcccaa atcttccttg ctcagtggct taagctcacc tggcttgagc   1260
tcagatttgg gttgcacccg gattatgcca tcagcaacag gcccggagga gaaggatgat   1320
cctagcagtc tctgttcaga ggagctgctg ctggtacttg tcctcgtact gctccgcgac   1380
cctgagctga ccgtgcttat ggatctggac agagaggctc gtgcagaaga atggacctgc   1440
gagtgctgga gcctaggagg ctggcggtgc tcaggcagac cgtggagtct ctcgtgtttg   1500
tgctgagtgg aggggcgagg agcaggcttg agcccaggtc ttgggacgac agtaggcccc   1560
tctgtgtact cattggtgtt tcggatggct ctgatctgat ccagagacaa gacatgtacc   1620
tgctgggtga gggcgtctct ggggtcgggc tccccacgct gtctgccacc gtcacggggc   1680
gtctgcagca agggctgcga cccgttgcca ctctgagctc tggcctccat caggtcttgg   1740
aagtgtggtc actccagcag gcttagaaca catctgaact cctgaggaag ccaagaggaa   1800
agaacggttg atactctaag atacttccca ctctccaccc acctgaattg actcctcact   1860
tcccactttc cctagagaaa caggatttga aatggaatgg cagtagggag gtattagcca   1920
tatgatcaac aacgcatgta cccaaaagta aaaattacgg cgggctactg acaattctgt   1980
aatcctgtga cgtacaacaa tacaaaactg atctttgagt cacttaagta agaattcctt   2040
attcaaagaa acatacaatt tgtaaggttc aggttcaacg taaaaatcgc aaggaagtat   2100
tgctggaata taacactgct accaatgttt tcaaaagttg aaaatccttt caaaatttga   2160
aataggtttc catttgtcat agtcattttt gccttaagcg ttaataatgc aacctagaag   2220
attctttctt ggttcttaat ttttactttt acatcaaaca ctttaactgt gacgtatacg   2280
gcattctgta acttttcaa accaggtaga atgaatatgg catgcaaaaa agtaaatacc   2340
caaattctac aacaatcatg ccatttttta ttaattgtat agtagcacaa agttatagaa   2400
ctaaaagcaa atcaaatcct attaggtgcc agaaacacat aaagcaaac ttaacaagaa    2460
gaagacatga atttattttc aacttctcaa caacttaaga attaactatt ttacagtctg   2520
atagcctaga acaccacctt agattctgca gctaaaggt tgttctccct gctaattgag    2580
aacacaaacg aagtgataat aaccagaaaa gcgtttaaa aattcaaatg tcacatttcg    2640
tatctagcat tctgtcaagg aattccttaa actgcagtcc ttcttcaatt tcaaaacgat   2700
cacccccttt cccaagccta tatgacaata aaaagtataa aacaggcaaa agtggacctt   2760
tatccgatct ccgctcttta gaatagaggc cacagcgaac aaggcaggtg acaaacgtct   2820
cccaattcgg agcaaggcag tgctggaaac cggatctcct cacctccaaa agaatggcag   2880
aagacaacgc tgctctttgc tttcacttag tttatcgcct ctctgtgccc caacaccgtc   2940
cccagcaggt gggacacagc cgatccccag gggagtttct ccaggcggac tgacgctgtc   3000
catgggccag gctgcccccc tgcttacgat ccccagactc agacaggcgg gggccgcggg   3060
cgcctccgaa gggtacgtgt cacgaaatgc aggagcacac ttcccccgcc tccctctccc   3120
cagctaagat ctcccccaac tcaagagaac tgccttccag ccccaaggag ccactccgcc   3180
cccaggcaga ggtcacgccg cccactgcca ggctttctgc aaagccctc ggacatccgg    3240
cacaggtttc ccacccgac actgcgagca cgaaagccct gcctgagaca cgcagccagg    3300
acgcacaagt ccaacccacg cacacacagc gactccacgc tgcactgacc gaaggggca    3360
ttgcctgtaa tctgcacacg cctatctcct tttgggtcga gagaaaaaaa aaagatatca   3420
tatttcttaa agtgaaagaa aaatggcttt ttaaaaaaag ggcattttcc agggtcccac   3480
tgctcactcc gggcgcgcag gacccagctc ccggagctgt aaactttcgg tgcagatttg   3540
cttgcagtca aagtagcatc tttgaaataa aaggggggctt ttttgttttt attttttaag  3600
tgatttctgc cgatccgatc cctggcctcc ttcttcaaag ctggactccc tacctccgcc   3660
cctcttctct ttcccagtcc cccctccct ttgaaagtgc tttgaaaccc ccattaagaa    3720
cagtgtgtga tcagactgag gattagggga aaagaacttc agctctaggg tggggcaaac   3780
ggacacagaa actgctttgt aaaaaacaca caagaatcca aattaaaaca cagcaacaac   3840
aacaacaaaa ggaaataaaa aattgcctat tttgccacct actttcaggt aatggaaaat   3900
gatcgcgacc gcttgatgac tttcttcctg cgctgggtca gcccgagctt ccaaaaataa   3960
aataagtgtg acccaggctg accacgaaga acggaagaga gagagctgca cttccgaacc   4020
gcagagaccc ggcgccaggc agggcgacgc tcccacccgc tccgggctag actgtccaca   4080
```

6898

```
cggagcagag gcgggcactc cctccacccg gcaccctgcc tttttctcac cctggaagtc    4140
tcctgccccc gaggcgggca acctgtgtcc cccagcccca ccagcgcccc gcctagggac    4200
agcctctccc tggactttgc cttccaccaa gaggaagaac aggttagaaa tgcgggcgcc    4260
tgcaaaggca acctggaaaa tacaaagtgt ttttctctcc ctctcccgct ctcagcgccg    4320
aattcgcggc cagtgcacgg ctgggagcag acttcaggct agctgtcctc cgtcccaacc    4380
ccctagagcg cgggcgcgcg gggtcgcctg tcgggacac tgcacggggt gcatacagaa     4440
gtccccgcag aggcaggccg agcccaagcc ccgggcgagg caggtccgcg gggagcgccc    4500
cggatcctcg cgaagaccct gcgggatttg agaaagggag gctcggggag agacggaccc    4560
aactcctggt ccggctgcac ctactccatg ttgcccacaa cgcgccggcc gcggcgccag    4620
gaggggaaga gccaaacgtg cctcaccgtg atcgcggctt tgcaccaacc cctctccctt    4680
ggattctctt ctttctgcga tgtgcaaata aatccagtct cgatgcaaac ttttttcctt    4740
tctttccaac ctctgcttta gaccaacttc cgagcaatcg gcgggagaaa aaaagagaat    4800
tc                                                                   4802
```

<210> 9316
<211> 368
<212> DNA
<213> Homo sapiens

<400> 9316
```
ggcatgggca aggacttcat gtctaaaacg ccaaaagcaa tggcaacaaa agacaaaatt      60
gacaaatggg atctaattaa actaaagagc ttctgcacag caaagagtc taccatcaga      120
gtgaacaggc aacctataca atgggagaaa aattttgcaa tctactcatc tgacaaaggg      180
ctaatatcca gaatctacag tgaactcaaa caaatttaca agaaaaaaac aaacaacccc      240
atcaaaaagt gggcaaagta tatgaacaga cacttctcaa aagaagacat ttatgcagct      300
aaaagacaca tgaaaaaatg cccatcatca ctggccatca gagaaatgca aatcaaaacc      360
acaatgag                                                            368
```

<210> 9317
<211> 453
<212> DNA
<213> Homo sapiens

<400> 9317
```
ctaggttcaa aagagagcag agaaacagac actctgaggt agcctttatg gagagtaatt      60
tggccagatc tcaaaattta acacacacat gcactgacca ataatcaca cttctaggaa       120
atatccccca tgtacctact gcagggattt tcaatgcagc cctatttatc agaacgacta      180
gaaacaaccc aaatgcctac tgggaacagc cagttaaaca cgattacaat gatagcctat.     240
gcagtcagca aaaaaagaat gaggtgaccc cataaatatg gtaggaatga cctccaaatt      300
acactgttaa gagacaaaag cagaagggta tctaccatct tgtgctttca gctgtgtgat      360
gcatagaatt catacacaat atgaatgcat atatgtacac acacgtgcac atctgtttct      420
gcatatgtgt atgggtatat gaggaagcaa gtt                                453
```

<210> 9318
<211> 158
<212> DNA
<213> Homo sapiens

<400> 9318
```
gcatgcctgt aatcccagct actcaggagg ctgaggcagg agaatctctt gaacctggga      60
ggcagaggtt gcagtgagcc gagatagtgc cactgcactc cagcctgggc gacagacgga     120
aactctgtct caaaaaaaaa aaaaaaaaa aaaaaaa                              158
```

<210> 9319
<211> 2925
<212> DNA
<213> Homo sapiens

<400> 9319
ctcccgagta gctgggacta caggcgcccg ccaccacgcc tggctaattt tttgtatttt   60
tagtagagac ggggtttcac cgcgttagcc aggatggtct tgatctcctg acctcgtgat   120
ccgcccgtct cggcctccca aagtcctggg attacaggcg tgagccaccg cgcccggctg   180
agatgggtat tattaagaaa ttaagatgtg gattaccagg gtaagtcata tttcaatgtg   240
caacctctgc aagtccacag ggtgtgatat ggacattaag gagatctatg gacgaatagc   300
gtatgatacc ttgacaagtt gacaaaatgt aaaatagttg aatggccata gaaaaaaacc   360
agctttttag ccccataggc cgagggattc aggagggctg gctacgggca ttttggaatg   420
gaagatgttg taccaacaaa tcaagcttag gttcctggca atttgcccac atataatatg   480
tgaaagttca gatgtgaaat aaatctgcgg ctaatagtaa gaacctagcc acaggagtta   540
aaacttacgg ttctgggacc agatggactg ccttctaatc ttagtcttac tacatttttag   600
cggtaaaacc ttcagcaagt tatttagcct ccagcatctc agttttctca tctgtaaaat   660
ggtgataatg ctactcttac attgggttgt agtaggataa aaggagaaaa cgtatgtaaa   720
ggatttagta gaaacttatt aaaattaagc aattattatt tctcaattct aagattctaa   780
cctgcaaaag gcataaggca gctgctgaga acagggtgag aagataggga ttcggtcagg   840
aaaagtcttg tttccctgtt gctgttggtg gttttgtttg ctcatttgtg tgtttttttt   900
attaatcatt ttcacttgtg tttattgaca agcttaatca ataatgccat tgacatttag   960
taaaagtaaa tttccttaag tgatctccca ggtagcaatg tttattcatt atgtgtggag   1020
tagagatagg aattatttta ttgctgcaaa tattttatta ttggtttttc aagttttaaa   1080
agtaatttta attttttaat ttttgtgagt atatagtaag tgcacatatt tatggggtac   1140
atgagatatt ttgatacagg catatgatgt gtaataatca catcagggta aacagggtaa   1200
gcatcacctc aagcatttgt cctttttgt attacaaaga atctaattat actcttttag   1260
ttattttaa atgtacaata aattattgtt gactatagtt ttgccactgc aaacaataga   1320
aggcttcctg atacagcctc ctagtcattg gagttctatg gcagaattcc taaagttttt   1380
aagtttcatg agatggctaa attttggtaa atatgatact ttctttgaac agatgctaca   1440
gaggccaata taaaggagtg taacagagtg acacctgtga tcagtatctc tccaactaca   1500
aagagtgtcc cttaaatttc ttctgtgtgg ttcctctttt tttttttttt ttttttttgag   1560
acgaagtctc gctctgtcgc ccaggctgga gtgcagtggc gcgaacttgg ctcgctgcaa   1620
gctccgcctc ccgggttcac tccattctcc tgcctcaccc tctcaagtag ctgggactac   1680
aggtgcctgc caccactccc ggctaatttt ttttgcatt tttagtgaga gatggggttt   1740
cactgtgtta gccaggatgg tctccatctc ctgacctcat gatccagccg ccttggcctc   1800
ccaaagtgct cggattacag gcgtgagcca ccgcgctcgg cctgtgtggc tcctcttaag   1860
taatactctg cttcgtccat ataagcagag gtcagaactg gctaagaatt tctttatgtg   1920
tgtttatcct gatgttttcc tactgtcact tttcttttct tatggattag cattgaggga   1980
atggtcagat ggtgcctgcg tgagtctgat tgaaacattt tagcggcggg gtgcggggt   2040
tgatggcatg tgcaatagtt taggatattt gagttagtgg cagaatgtag acatgagggt   2100
gagtagagag tgcgtagcag agcaagcaat tcaggaatct atgttggtta attactttg   2160
ttttgtggac atttttattct acctgaaaag attatctagg aactacagaa attaatgacg   2220
tgtagtggaa actttgcaca gtgtaagtgt tatccattta cttctcttag tttccaatac   2280
aatgactctc ctggtagctg tcatacatga taaatataat ttcgttaata aaattatatt   2340
ttatataatt gcgtacttta aacaagtgat caatataact cagttataaa tgtacagtaa   2400
caaagatcaa tggataataa atacttctgc gttcatttc atggatacat tctattttg   2460
tttgtctcac aagcagtaat cagactatga atcatgatat agctccataa acacttactt   2520
tatagcaatt cactgatata tgctccacca aaaaaaatta agagacggat acaagcaatt   2580
taaagcttct gtgtgtgtgt gcatgcaacc gatgtgtatg gcttttttt tttttttttt   2640
ttttgacaca gagtgtcgct ctgtcgccca ggctggagtg cagtggcgtg atctccgctc   2700
actgcaagct ccgcctgcct ggttcacgcc attctcctgc cttagcctcc caagtagctg   2760
ggacttcagg cgcctgacac cacgcctggc taattttttg tattttagt agagacgggg   2820
tttcaccgtg ttatccagga tggtctccat ctcctgacct cgtgatccac ctgcctccgc   2880
ctcccaaagt gctgggatta caggcttgag cctcctcgcc cggcc   2925

<210> 9320
<211> 129
<212> DNA
<213> Homo sapiens

<400> 9320
tttttttga gatggagtct cgctctgtcg cccaggctgg agtgcagtgg cgctatctcg   60
gctcactgca agctccgcct cctgggttca cgccattctc ctgcctcagc ctcccgagta   120

6900

gctgggact   129

<210> 9321
<211> 453
<212> DNA
<213> Homo sapiens

<400> 9321
ctaggttcaa aagagagcag agaaacagac actctgaggt agcctttatg gagagtaatt   60
tggccagatc tcaaaattta acacacacat gcactgacca aataatcaca cttctaggaa   120
atatccccca tgtacctact gcagggattt tcaatgcagc cctatttatc agaacgacta   180
gaaacaaccc aaatgcctac tgggaacagc cagttaaaca cgattacaat gatagcctat   240
gcagtcagca aaaaagaat gaggtgaccc cataaatatg gtaggaatga cctccaaatt   300
acactgttaa gagacaaaag cagaagggta tctaccatct tgtgctttca gctgtgtgat   360
gcatagaatt catacacaat atgaatgcat atatgtacac acacgtgcac atctgtttct   420
gcatatgtgt atgggtatat gaggaagcaa gtt   453

<210> 9322
<211> 131
<212> DNA
<213> Homo sapiens

<400> 9322
ttttttttt gagatggagt ctcgctctgt tgcccaggct ggagtgcagt ggcgcgatct   60
cggctcactg caagctccgc ctcccgggtt cacgccattc tcctgcctca gcctcccgag   120
tagctgggac t   131

<210> 9323
<211> 1090
<212> DNA
<213> Homo sapiens

<400> 9323
gaatgtaatt tatttttttt aattatactt taagttttag agtacatgtg cacaacgtgc   60
aggtttgtta catatgtata catgtgccat gttggtgtgc tgcacccatt aactcgtcat   120
ttagcattag gtatatctcc taatgctatc tgtgccccct cccccaaccg cacaacaggc   180
cccggtgtgt gatgttcccc ttcctgtgtc catgtgttct cattgttcaa ttcccaccta   240
tgagtgagaa catgtggtgt ttggtttttt gtccttgtga tagtttgctg agaatgatgg   300
tttccagctt catccatgtc cctacaaagg acatgaactc atcatttttt atggctgcat   360
agtattccat ggtgtatatg tgccacattt tcttaatcca gtctatcatt gttggacatt·   420
tgggttggtt ctaagtcttt gctattgtga atagtgccac aataaacata cgtgtgcatg   480
tgtctttata gcagcatgat ttatagtcct ttgggtatat acccagtaat gggatggctg   540
ggtcaagtgg tatttctagt tctagatccc tgaggaatcg ccacactgac ttccacaatg   600
gttgaactag tttacagtcc caccaacagt gtaaaagtgt tcccatttct ccatatcctc   660
tccagcacct gttgtttcct gactttttag tgattgccat tctaactggt gtgagatggt   720
atctcattgt ggttttgatt tgcatttctc tgatggccag tgatgatgag catttttttca   780
cgtgtctttt ggctgcataa atgtcttctt ttgagaagtg tctgttcata tcctttgccc   840
acttttttgat ggggttgttt gtttttttct tgtaaatttg tttgagttca ttttagattg   900
tggatattag ccttttgtca gatgagtaga ttgcaaaaat tttctcccat tctgtaggtt   960
gcctgttcac tctgatggta gtttcttttg ctgtgcagaa gctctttaga ttaattagat   1020
cccatttgtc aatttggct tctgttgccc ttgctttttgg tgttttagac atgaagtcct   1080
tgcccgtgcc   1090

<210> 9324
<211> 453
<212> DNA
<213> Homo sapiens

<400> 9324

```
ctaggttcaa aagagagcag agaaacagac actctgaggt agcctttatg gagagtaatt          60
tggccagatc tcaaaattta acacacacat gcactgacca aataatcaca cttctaggaa         120
atatccccca tgtacctact gcagggattt tcaatgcagc cctatttatc agaacgacta         180
gaaacaaccc aaatgcctac tgggaacagc cagttaaaca cgattacaat gatagcctat         240
gcagtcagca aaaaagaat gaggtgaccc cataaatatg gtaggaatta cctccaaatt         300
acactgttaa gagacaaaag cagaagggta tctaccatct tgtgctttca gctgtgtgat         360
gcatagaatt catacacaat atgaatgcat atatgtacac acacgtgcac atctgtttct         420
gcatatgtgt atgggtatat gaggaagcaa gtt                                     453
```


<210> 9325
<211> 969
<212> DNA
<213> Homo sapiens

<400> 9325

```
gccagggcgc acccgtcggc ggtaaaagct gaggggctgg cgcggggggat tggtgggcga          60
cacttttacg tctacacgtg cctacccgtc tgcacgtttc tgagtccgca cggttgtctt         120
ctcttgctga atggacatag gtgttttgtt ttgtcccaag agatacaggc aagcagtaca         180
gggggtgatgg agtgctcctt gaccttagcg gggctgaccc tggcactccc tgtaggtctc         240
cccgctgcga agcactgagt ctcttcactg cagtttctct ccagttaccc gccctgtcta         300
cggcccaaac ggccatgcta gtgaaaacct gccctggccg ctaagcaagc ctagcccagg         360
ctgtaaccca tgtttctagg gcttgttttc ctctgcagtc aaatcagaga ttcggagttg         420
aaggggatct tagaggtcaa catgcccaac ctcttagccc gagtgagtga atgtacgctt         480
tttacctgca caccccgaaa atcgcccgtt ttctggaaac aacgttgatt atgtagtcct         540
ggaactttcc tgcatgcaca ttttattcct tcgacaatat ttattgctac ctactgtgtg         600
caggcattgt aggccccggg gatacgatta aaaccaatga agaacgaaac gcacaagatt         660
gttgatctcg gccgggcgcg gtggctcacg cctgtagtcc cagcactttg ggaggcggag         720
gtgggtggat tgcttgaggt caggagttcg agaccagcct ggccaaccta gcgaaacccc         780
acctctacta aaaatacaaa aattggccgg gcttggtggc gtgcgcctgt agtcccagct         840
actcgggaag ctgaggcagg aaaatcactt gaacctggga agtggaggtt gtagtgagcc         900
aagattccgc ctgcattcta gcctgggcaa caaaatgaga ctctgtctca gaaaaagaaa         960
aaaaaaaaa                                                                969
```


<210> 9326
<211> 265
<212> DNA
<213> Homo sapiens

<400> 9326

```
cacgtctgta atcccaacac tttgggatgc cgaggtgggc ggatcacgag gtcaggagat          60
ggagaccatc ctggctaaca cggtgaaacc tcgtctctac taaaaataca aaaaattagc         120
tgggtgtggt ggcgggcgcc tgtagtccca gctactcggg aggctgaggc aggagaatcg         180
cttgaacctg ggacgcggag gttgcagtga gctgagatca ggccactgca ctccagcctg         240
ggcgacagag ccagactcca tctca                                              265
```


<210> 9327
<211> 921
<212> DNA
<213> Homo sapiens

<400> 9327

```
gatttctatg cattgtgtaa tattcagtga tgttgagatt ttgcatgttg ttacaggtgc          60
tctttcatat gtgtgtttgg ggggttgatg tggaattgtt aaccactgct gctatcactt         120
attggagtta aactgaaaaa ctgtgttaaa aggctgtgcc agtcaacatt tctatgtgtg         180
acttaagtaa ctgtgtactt cattgtttaa tattttgagc cagcacttag tggcctctac         240
agaaggaaat attgtagttg tcaaagtggt gccaaacttg aaaatcttgt gtcatgttta         300
```

```
taattccagg ccaggtcagc ttttcttcaa cactttccga gctctttgaa agcaaaaaac    360
atttgcaaaa agagaaagaa agcaagaatt ctgaactttt ctaatactct ctcctctaga    420
attttaaata ttttttttctt ttgatgtttg agtatcttac agaaaaatcc aatcaaatga    480
ctagcggtag aatttccctt gatctggata tttttaggct gaacagtgta atagcagagg    540
actatgaggt gcatacatta tttttgttgg ctatcatggc ttattgtttg aatttcattt    600
aataacaata ttcaggctgg aggtggtgac tcacacctgc attcccagca ctttgggaga    660
ctgaggcggg cggatcacct gagatcagga gttcgaggcc agcctggcca acatgacgaa    720
gcccagtctc tactaaaaat acaaaaatta gctgggtgtg gtggctcaca cctgtaatcc    780
cagctacttg ggaggctgag gcaggagcat tgcttgagcc tgggaggtgg aggttgtagt    840
gatctgagat cacactactg cactccagcc tgggtgaggg agcaaggctc caacccccct    900
aaaaagaaaa aaagaatatt c                                             921
```

<210> 9328
<211> 921
<212> DNA
<213> Homo sapiens

<400> 9328

```
gatttctatg cattgtgtaa tattcagtga tgttgagatt ttgcatgttg ttacaggtgc     60
tctttcatat gtgtgtttgt ggtgttgatg tggaattgtt aaccactgct gctatcactt    120
attgtagtta aactgaaaaa ctgtgttaaa aggctgtgcc agtcaacatt tctatgtgtg    180
acttaagtaa ctgtgtactt cattgtttaa tattttggagc cagcacttag tggcctctac    240
agaaggaaat attgtagttg tcaaagtggt gccaaacttg aaaatcttgt gtcatgttta    300
taattccagg ccaggtcagc ttttcttcaa cactttccga gctctttgaa agcaaaaaac    360
atttgcaaaa agagaaagaa agcaagaatt ctgaactttt ctaatactct ctcctctaga    420
attttaaata ttttttttctt ttgatgtttg agtatcttac agaaaaatcc aatcaaatga    480
ctagcggtag aatttccctt gatctggata tttttaggct gaacagtgta atagcagagg    540
actatgaggt gcatacatta tttttgttgg ctatcatggc ttattgtttg aatttcattt    600
aataacaata ttcaggctgg aggtggtgac tcacacctgc attcccagca ctttgggaga    660
ctgaggcggg cggatcacct gagatcagga gttcgaggcc agcctggcca acatgacgaa    720
gcccagtctc tactaaaaat acaaaaatta gctgggtgtg gtggctcaca cctgtaatcc    780
cagctacttg ggaggctgag gcaggagcat tgcttgagcc tgggaggtgg aggttgtagt    840
gatctgagat cacactactg cactccagcc tgggtgaggg agcaaggctc caacccccct    900
aaaaagaaaa aaagaatatt c                                             921
```

<210> 9329
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 9329

```
atttggacac attgctgatg aaattactga tttaattcta agactatcaa aactaattcg     60
tcaaggtccc caccacctct ttgcttaaag gaaacaaag gcagatttta actgtgagcc    120
tcttctctag aatatgctgt agacatttgc ccctccgtga ggtgataaag caataaaaat    180
aaatttaatt atgtgtggtc taaagaagtt ctacctctgt ccattggcct ccagagtcac    240
acaaaattat ttcttgattc ctacatcaga ggttttcagg cagagccttt gtaccaagaa    300
ttcctttttat attttggaca ccaaagatta tggcatgata tatcctgatg attaacaatt    360
tagcagtggg cacatttatt tgagtcctgc tcttggattt atttcccacc tttgggtctt    420
acgtacattt tgtatttctg tcctgaggac ttttttgcctc aggcagtttt taaatcaaaa    480
aaatatatat atatttatta ggtttctaat ttatagagtt tccaatttct cccacaattt    540
taaatgtttt cactgccaaa gttagcagta gatttgctag gttaatgcca tggtcagtaa    600
tagtttgtac cttttatgtt gtagcctgaa aatgtaactc taaccccgta ggcctgaaac    660
ctggtgggaa gatgattgaa agtgttttag attcaacaga ttgactatgt atgacttatc    720
tattaaaatg aagaacttcc atggtttaat agaatgaatg ctgtattcaa caaggtcttc    780
catccttctt ataaatctta agactgtgtt taagctttct ttcactttta ctctatccct    840
tggaagttaa ttgggaataa aaagatttat caatttagtc actataattt aaggccaggc    900
atctgcttgg aaatacaata accacaatta atacttacag aaaattgttt caacagatta    960
actctgctat tttaaaaact atagtagtgt tctttgagga tgcatttact tttccccaaa   1020
tttgatagat agttattttt atatatttt tctggccact tggcttctaa ctgattaaca   1080
```

6903

```
tgaaaaacgc acgtgtgcct gtttcactca aatcatattt tacaactttt taaaagctgc   1140
tacagttata gtttgtgaaa gaggagaaag gtgaattgca acagagggaa attactgtta   1200
ctgtgtcaaa tatgtgactg atgcttttgg tcagataatc tgctgcctgt caatatttgt   1260
aataacagaa ttttttgtta agagtactct catctttatt ttgctgctca ctgatttttt   1320
acactaagat gttctcatct ttgtcgactc actgtttttg cttcatattt gtctgtgtac   1380
ttgtgctcta aataaaaatc tagtttttatg tctagtttat tccattgtgt gtataatgtt   1440
tgcctctgat gtagtgtaat tttctattgt ttttgatgtt tgttggtaca gcctaaaact   1500
tatggaaata agaaaagcaa tccaataaag tcagctaatg agtgtcaa             1548


<210> 9330
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 9330
atttggacac attgctgatg aaattactga tttaattcta agactatcaa aactaattcg   60
tcaaggtccc caccacctct ttgcttaaag gaaaacaaag gcagatttta actgtgagcc   120
tcttctctag aatatgctgt agacatttgc ccctccgtga ggtgataaag caataaaaat   180
aaatttaatt atgtgtggtc taaagaagtt ctacctctgt ccattggcct ccagagtcac   240
acaaaattat ttcttgattc ctacatcaga ggtttcagg cagagccttt gtaccaagaa   300
ttccttttat attttggaca ccaaagatta tggcatgata tatcctgatg attaacaatt   360
tagcagtggg cacatttatt tgagtcctgc tcttggattt atttcccacc tttgggtctt   420
acgtacattt tgtatttctg tcctgaggac ttttttgcctc aggcagtttt taaatcaaaa   480
aaatatatat atatttatta ggtttctaat ttatagagtt tccaatttct cccacaattt   540
taaatgtttt cactgccaaa gttagcagta gatttgctag gttaatgcca tggtcagtaa   600
tagtttgtac ctttttatgtt gtagcctgaa aatgtaactc taaccccgta ggcctgaaac   660
ctggtgggaa gatgattgaa agtgtttttag attcaacaga ttgactatgt atgacttatc   720
tattaaaatg aagaacttcc atggtttaat agaatgaatg ctgtattcaa caaggtcttc   780
catccttctt ataaatctta agactgtgtt taagctttct ttcactttta ctctatccct   840
tggaagttaa ttgggaataa aaagatttat caatttagtc actataattt aaggccaggc   900
atctgcttgg aaatacaata accacaatta atacttagag aaaattgttt caacagatta   960
actctgctat tttaaaaact atagtagtgt tctttgagga tgcatttact tttccccaaa   1020
tttgatagat agttattttt atatattttt tctggccact tggcttctaa ctgattaaca   1080
tgaaaaacgc acgtgtgcct gtttcactca aatcatattt tacaactttt taaaagctgc   1140
tacagttata gtttgtgaaa gaggagaaag gtgaattgca acagagggaa attactgtta   1200
ctgtgtcaaa tatgtgactg atgcttttgg tcagataatc tgctgcctgt caatatttgt   1260
aataacagaa ttttttgtta agagtactct catctttatt ttgctgctca ctgatttttt   1320
acactaagat gttctcatct ttgtcgactc actgtttttg cttcatattt gtctgtgtac   1380
ttgtgctcta aataaaaatc tagtttttatg tctagtttat tccattgtgt gtataatgtt   1440
tgcctctgat gtagtgtaat tttctattgt ttttgatgtt tgttggtaca gcctaaaact   1500
tatggaaata agaaaagcaa tccaataaag tcagctaatg agtgtcaa             1548


<210> 9331
<211> 1672
<212> DNA
<213> Homo sapiens

<400> 9331
ataatttatg atttgattct ttcctttgtc cagcctttaa catacatgtt tctgtaattt   60
aaataaaaat ttatgtactt tttccatttt agcaaatagt ttctttaccg aaacaggttg   120
caccatagtc cccatatggt tttctactgt tccacaacca ctatttcaca aagattgaca   180
aaacttgtat caaagttaaa tttatagaca tcttaaggta tcttaggaaa tatgtagtaa   240
aaaagaatca agtccacaaa ttatgaatat tttgctaata caccaaacac caatttcagc   300
aaatccaatc tacttaactt gtatgtttaa tgtggtaatt tttctaacaa aatttaatgg   360
gggtatgaat gatatattta caccttgac aaagatgaca tgtgtgattt tgttgtgacg   420
aagaaaggag agtatgattt ctggtgatta ttatattact ctggctcatc aaagctcaca   480
gaatatgtaa ggttctgcca catccaaagg tgttaggcaa acataataga aggcacacta   540
ggctgacaca cgttttcatc atacaaatct tccggtagtt cctcttcatc tccatcagga   600
aaatacgtag ggaatggtag attttttaccg agatccttat atgcaggcag tttagaatct   660
```

6904

```
ctgaccctta ctaagcaatt tttatgtcca ggtacagagc catttacata gattatgttg     720
tgctttgtgt ttattctcca cactttcagt ccatatactg ttctatatat gtttcccatt     780
tttccaggca ttttagttcc aggccagact ctgccaatgt caccagttga aatatctcca     840
ggtctcctgt gggttttcgt ttgaccatgt gtagcaggct ggcctttaaa tccccatctt     900
ttcatgacac cttgaaaacc tttaccaata gttttggctg tgacatccac atactgtcct     960
ggacaaaagt gagcagcata aagaggagtg cctggtttaa ttgcagcatt atctgttaca    1020
ttaaagatta taactgtctg ttttgacggc aatccaagtt ctcggtaaaa ttccaataca    1080
ggtgtagctt tatgaaaacg tgatacagtt tgcctcctac agacagggct gccgtttttc    1140
cattacggct ttcctttgaa gtatatttta ggacatgaca gtcttgtacc tgaagtaatg    1200
tgaccacgtg cttttgacca tccttggtcc ataaaggcat catgcccagc ttcaaggcca    1260
actctaaagg aacctggttc ccaaggatgc ataggccatg gttcatcttt cagaggacac    1320
agtttacttg ctaattgggt tttatcttca tcagagacca actgcttaat gaatgggaca    1380
ttttcttcag aaagatgctc atcccaccac gtaccactct ttccatgaag acttctaaca    1440
aaaagccaga tgtgtgttct gttccccggg cccagggcag cacccaggcc atccccgact    1500
tgacccagca cctgggcgcc gacctgcatc agcagcctcc aacccgggat ggattagccc    1560
gggaagactc aactcatgac ttccgggtgc ccagctgctc tgctttcagg gcgtccccac    1620
gccaccacca cgcggacgca gcagccatgg ggaagtcgct gcaatggccg cc            1672


<210> 9332
<211> 1672
<212> DNA
<213> Homo sapiens

<400> 9332
ataatttatg atttgattct ttcctttgtc cagcctttaa catacatgtt tctgtaattt      60
aaataaaaat ttatgtactt tttccatttt agcaaatagt ttctttaccg aaacaggttg     120
caccatagtc cccatatggt tttctactgt tccacaacca ctatttcaca aagattgaca     180
aaacttgtat caaagttaaa tttatagaca tcttaaggta tcttaggaaa tatgtagtaa     240
aaaagaatca agtccacaaa ttatgaatat tttgctaata caccaaacac caatttcagc     300
aaatccaatc tacttaactt gtatgtttaa tgtggtaatt tttctaacaa aatttaatgg     360
gggtatgaat gatatattta cacccttgac aaagatgaca tgtgtgattt tgttgtgacg     420
aagaaaggag agtatgattt ctggtgatta ttatattact ctggctcatc aaagctcaca     480
gaatatgtaa ggttctgcca catccaaagg tgttaggcaa acataataga aggcacacta     540
ggctgacaca cgttttcatc atacaaatct tccggtagtt cctcttcatc tccatcagga     600
aaatacgtag ggaatggtag attttttaccg agatccttat atgcaggcag tttagaatct     660
ctgaccctta ctaagcaatt tttatgtcca ggtacagagc catttacata gattatgttg     720
tgctttgtgt ttattctcca cactttcagt ccatatactg ttctatatat gtttcccatt     780
tttccaggca ttttagttcc aggccagact ctgccaatgt caccagttga aatatctcca     840
ggtctcctgt gggttttcgt ttgaccatgt gtagcaggct ggcctttaaa tccccatctt     900
ttcatgacac cttgaaaacc tttaccaata gttttggctg tgacatccac atactgtcct     960
ggacaaaagt gagcagcata aagaggagtg cctggtttaa ttgcagcatt atctgttaca    1020
ttaaagatta taactgtctg ttttgacggc aatccaagtt ctcggtaaaa ttccaataca    1080
ggtgtagctt tatgaaaacg tgatacagtt tgcctcctac agacagggct gccgtttttc    1140
cattacggct ttcctttgaa gtatatttta ggacatgaca gtcttgtacc tgaagtaatg    1200
tgaccacgtg cttttgacca tccttggtcc ataaaggcat catgcccagc ttcaaggcca    1260
actctaaagg aacctggttc ccaaggatgc ataggccatg gttcatcttt cagaggacac    1320
agtttacttg ctaattgggt tttatcttca tcagagacca actgcttaat gaatgggaca    1380
ttttcttcag aaagatgctc atcccaccac gtaccactct ttccatgaag acttctaaca    1440
aaaagccaga tgtgtgttct gttccccggg cccagggcag cacccaggcc atccccgact    1500
tgacccagca cctgggcgcc gacctgcatc agcagcctcc aacccgggat ggattagccc    1560
gggaagactc aactcatgac ttccgggtgc ccagctgctc tgctttcagg gcgtccccac    1620
gccaccacca cgcggacgca gcagccatgg ggaagtcgct gcaatggccg cc            1672


<210> 9333
<211> 583
<212> DNA
<213> Homo sapiens

<400> 9333
```

6905

```
aataaaaact taaaaaaaag tggctacctt tggatttaaa gtgaaaaatg tgatacgacc    60
aggatagtat atcacatgga gatctaacac tatgactaac aaacctattg ggtgatgtga   120
attaacaatc tggttcagag gaaatcaagt attttaagctg aggtctgctt atacacatgg  180
ttaaacttat ttgtcatgaa cctgccatta gtaaatacat gttaatttca tgcaattaaa   240
aagaaaccca gaaaccatta gcattttgat taatacatga ttaataaaag tttgttgaac   300
atacaatctt aaatcattat aaattctttt tgaaaggtag gctgggtgca gtggctcaca   360
cctgtaatcc taacactttg ggaggccacg gagggtaaaa agattgaact cagaagttca   420
aggccagcct gggcaacata gtaggacgcc attttttacaa aaaatacaaa taatagccag  480
gcatggtggt gggcacctat agtcccagat acatgggagg ctgaggtgga aggatcactt   540
gagctcagaa ggtcttggct ccagtgagcc aagattgcac cac                     583


<210> 9334
<211> 841
<212> DNA
<213> Homo sapiens

<400> 9334
caaaagaaac taccatcaga gtgaacaggc aacctacaga atgggagaaa atttttgcaa    60
ttgactcatc tgacaaaggg ctgatatcca gaatctacaa tgaactcaaa caaatttaca   120
agaaaaaaac aaacaacccc atcaaaaagt gggcaaagga tatgaacaga cacttctcaa   180
aagaagacat ttatgcagcc aaaaaaacac atgaaaaaat gctcattatc actggccatc   240
agagcaatgc aaatcaaaac acaatgaga taccatctca caccagttag aatggtgatc    300
attaaaaagt caggaaacaa caggtgctgg agaggatgtg agaaatagg aacactttta    360
cactgttggt gggactgtaa actagttcaa ccattgtgga gttggtgtg gcgattcctc    420
agggatctag aactagaaat accatttgac ccagccatcc cattactggg tatataccca   480
aaggattata aatcatgctg ctataaagac acatgcacac gtatgtttat cgcggtacta   540
ttcacaatag caaaaacttg gaaccaaccc aaatgtccaa caacgataga ctggattaag   600
aaaatgtggc acatatacac catggaatac tatgcagcca taaaaaatga tgagttcatg   660
tcctttgtag ggacatggat gaagctggaa accatcatgc tcagcaaact atcgcaagga   720
cagaaaacca aacatcgcgt gttctcactc ataggtggga attgaacaat gagaacacat   780
ggacacagga aggggaacat cacacactgg ggactgttgt ggggtggggg gaggggggag   840
g                                                                   841


<210> 9335
<211> 583
<212> DNA
<213> Homo sapiens

<400> 9335
aattaaaact tactaaaaag tggctacctt tggattaaaa gtgaaaaatg tgatacgacc    60
aggatagtat atcacatgga gatctaacac tatgactaac aaacctattg ggtgatgtga   120
attaacaatc tggttcagag gaaatcaagt atttaagctg aggtctgctt atacacatgg   180
ttaaacttat ttgtcatgaa cctgccatta gtaaatacat gttaatttca tgcaattaaa   240
aagaaaccca gaaaccatta gcattttgat taatacatga ttaataaaag tttgttgaac   300
atacaatctt aaatcattat aaattctttt tgaaaggtag gctgggtgca gtggctcaca   360
cctgtaatcc taacactttg ggaggccacg gagggtaaaa agattgaact cagaagttca   420
aggccagcct gggcaacata gtaggacgcc attttttacaa aaaatacaaa taatagccag  480
gcatggtggt gggcacctat agtcccagat acatgggagg ctgaggtgga aggatcactt   540
gagctcagaa ggtcttggct ccagtgagcc aagattgcac cac                     583


<210> 9336
<211> 980
<212> DNA
<213> Homo sapiens

<400> 9336
caaaagaaac taccatcaga gtgaacaggc aacctacaga atgggagaaa atttttgcaa    60
ttgactcatc tgacaaaggg ctgatatcca gaatctacaa tgaactcaaa caaatttaca   120
```

6906

```
agaaaaaaac aaacaacccc atcaaaaagt gggcaaagga tatgaacaga cacttctcaa        180
aagaagacat ttatgcagcc aaaaaaacac atgaaaaaat gctcattatc actggccatc        240
agagcaatgc aaatcaaaac cacaatgaga taccatctca caccagttag aatggtgatc        300
attaaaaagt caggaaacaa caggtgctgg agaggatgtg gagaaatagg aacacttta         360
cactgttggt gggactgtaa actagttcaa ccattgtgga agttggtgtg gcgattcctc        420
agggatctag aactagaaat accatttgac ccagccatcc cattactggg tatatacccca       480
aaggattata aatcatgctg ctataaagac acatgcacac gtatgtttat cgcggtacta        540
ttcacaatag caaaaacttg gaaccaaccc aaatgtccaa caacgataga ctggattaag        600
aaaatgtggc acatatacac catggaatac tatgcagcca taaaaaatga tgagttcatg        660
tcctttgtag ggacatggat gaagctggaa accatcatgc tcagcaaact atcgcaagga        720
cagaaaacca aacatcgcgt gttctcactc ataggtggga attgaacaat gagaacacat        780
ggacacagga aggggaacat cacacactgg ggactgttgt ggggtggggg gagggggggag       840
ggatagcatt aggagatata cctaatgcta aatgacgagt taatgggtgc agcgcaccaa        900
catagcacat gtatacatat gtaacaaacc tgcacattgt gcacgtgtac cctaaaactt        960
aaagtataat aataataatt                                                    980


<210> 9337
<211> 3489
<212> DNA
<213> Homo sapiens

<400> 9337
ggcaggtaaa agcagctgtt aagtatgccc ttagcgtagg ctaccgccac attgattgtg         60
ctgctatcta cggcaatgag cctgagattg gggaggccct gaaggaggac gtgggaccag        120
gcaaggtaag gactggggtt gtaaatagag gtgggataag agaacttaga agctgaagct        180
agggctgggg cccagctgga gggaatctgg catcagcttc cttccagttc ctctcccaga        240
gttgagggtg ggtgagacca cgtgctcatg gctcttctca ctgtgggccc tgccccctgc        300
actaggcggt gcctcgggag gagctgtttg tgacatccaa gctgtggaac accaagcacc        360
accccgagga tgtggagcct gccctccgga agactctggc tgacctccag ctggagtatc        420
tggacctgta cctgatgcac tggccttatg cctttgagtg agccttgcca gagcctcatc        480
tggggaatca gggggttgag caggatggtg ttagtaactt attgtaagtc acagcagcag        540
agcaggatag gaacactcat ttgcatgcca agctgaggag cttgacatgg gatcttagcc        600
tcttctgcta cagcagctta gctgtagcta caggagttta actctggaaa aaggaaggca        660
gtctcacatg gtgtgtaccc cagggtatgc acctgtaacc ctcctgctcc ctttattcat        720
ttagaaaagg tgctgacttt tctgttgagc acctgggggtt acagtaataa gtaagtctca        780
gcagaagatg tgagaagagc tcaccattag tgccgtgccc tgtgctggaa gaagggtgga        840
taactccctg aggatgagtt aaggaagact tcctagggga gaggagatat ctacgtctag        900
gaagaggagg gggcataggc attccatgta aacttaacac ctgggttacg atctggaagg        960
atgaaaaagc atggcttttt ttggccaggc gcggtggctc acgcctgtaa tcccagcact       1020
ttgggaggct aaggcgggcg gatcacgagg tcaggagatc gagatcatcc tggctaacac       1080
ggtgaaaccc cgtctctact aaaaatacaa aaaattagct gcgcgtggtg gtgagcgcct       1140
gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacccag gaggtggagc       1200
ttgcagtgag ctgagatagt gccactgcac tccagcctgg cggtaaagc gagactccat        1260
ctcaaaaaaa aaaaaaaga aaagcatgg ctttttaaaa attcttggcc ctttgtcctc         1320
tctgggattg gagtttggga catagagtgg ctggatgggc aggtagggta gaagcctggc       1380
atttgtgtcc acacttggtg gggctgtctc tcactcaggc ggggagacaa ccccttcccc       1440
aagaatgctg atgggactat atgctacgac tccacccact acaaggagac ttggaaggct       1500
ctggaggcac tggtggctaa ggggctggtg caggcgctgg cctgtccaa cttcaacagt        1560
cggcagattg atgacatact cagtgtggcc tccgtgcgtc cagctgtctt gcaggtaagg       1620
acagcaagca gatgagtggt ttaggggttg tctgctcaag agcatgaggg agcagacgat       1680
ggatctgctt aagggagata gctagcaagt tgtcagagtg ttggtgcaga agtcctctgc       1740
ataaaggtgg gcattgaagc agtgggagag aatgaaattg ccgatgggaa atggtgagaa       1800
aagcaggctg aaggggagtg gaggagtcag caatagggggg tggtccagac atgcatgtct      1860
gggatgggcc aagcaagctg ggtgtcacca cttcatggtg atgggttatt ctttggctca       1920
ggtggaatgc cacccatact tggctcaaaa tgagctaatt gcccactgcc aagcacgtgg       1980
cctggaggta actgcttata gccctttggg ctcctctgat cgtgcatggc gtgatcctga       2040
tgagcctgtc ctgctggagg aaccagtagt cctggcattg gctgaaaagt atggccgatc       2100
tccagctcag atcttgctca ggtatggggc agtcttaggg agagggccct gggttgggag       2160
gcaagggtta agggatttct tatttcagtg tctgggtgag gctgaggatc ttgccttgtg       2220
atctggaggg aggccactgt aggcatattt cccatttcag cagggctcag gtgctccagg       2280
```

                              6907

```
agcttaggga agctgcatgg ggaacaaaat agtgcttatg aatactgacc ccttttcctc    2340
atctgtctaa tcccccaact taggtggcag gtccagcgga aagtgatctg catccccaaa    2400
agtatcactc cttctcgaat ccttcagaac atcaaggtac ttggtaatgg gttctatctt    2460
ctttagctct ttgggacatt ttcttggccc tgactctacc tggctaaaaa ggcagtgttg    2520
tggaacccca gcttctgctc acaaagctgg cttttcttgaa ccccactctc catcctcagg    2580
tgtttgactt cacctttagc ccagaagaga tgaagcagct aaatgccctg aacaaaaatt    2640
ggagatatat tgtgcctatg cttacggtga ggatgtatca gcctcctaga cttggggaat    2700
gtgagatttg gggtgggatt ctggcccagg tgtgacctaa ggcttgctgg ttgtgagaag    2760
gacacaatgt tgtgggtggg attgctatgc tggacatagt gccctcattt ctctttattg    2820
agctcaggga agtagtatgg ctcagggata aggcatataa cctgtgagtc ccagtcctgc    2880
ttcttgatat cttgtaacct agagcaagtt attaaacttc tccaagcctc agcttcctat    2940
gtgtaaaatg agcccagttc ctgacatgta gtagattctc agtaaatgat atgaggagag    3000
cccagaaggc gttgttgacc tcactcgagg gattgggggtt gggagggaag tcggctgtac    3060
ttagggaaat aaatggttcc tggcctcttg atctcagttc agactgcaaa ctcttagggg    3120
caggggtagc tacatatcag gctatgggtt tggtgctaga atggtgttga tactgtggtg    3180
ttctctgagg atggggatcc cagccaatgc catctggcat agtgctgtac acaggtgagt    3240
ttgtttagga agatttgggg aagatgcctg gagtctttgg aatggcaact cctgctgatg    3300
gagtaatcta tctgtctctc tttccaggtg gatgggaaga gagtcccaag ggatgcaggg    3360
catcctctgt accccttaaa tgacccgtac tgagaccaca gcttcttggc ctcccttcca    3420
gctctgcagc taatgaggtc ctgccacaac ggaaagaggg agttaataaa gccattggag    3480
catccatat                                                            3489


<210> 9338
<211> 3489
<212> DNA
<213> Homo sapiens

<400> 9338
ggcaggtaaa agcagctgtt aagtatgccc ttagcgtagg ctaccgccac attgattgtg      60
ctgctatcta cggcaatgag cctgagattg ggaggccct gaaggaggac gtgggaccag      120
gcaaggtaag gactggggtt gtaaatagag gtgggataag agaacttaga agctgaagct      180
agggctgggg cccagctgga gggaatctgg catcagcttc cttccagttc ctctcccaga      240
gttgagggtg ggtgagacca cgtgctcatg gctcttctca ctgtgggccc tgccccctgc      300
actaggcggt gcctcgggag gagctgtttg tgacatccaa gctgtggaac accaagcacc      360
accccgagga tgtggagcct gccctccgga agactctggc tgacctccag ctggagtatc      420
tggacctgta cctgatgcac tggccttatg cctttgagtg agccttgcca gagcctcatc      480
tggggaatca ggggggttgag caggatggtg ttagtaactt attgtaagtc acagcagcag      540
agcaggatag gaacactcat ttgcatgcca agctgaggag cttgacatgg gatcttagcc      600
tcttctgcta cagcagctta gctgtagcta caggagttta actctggaaa aaggaaggca      660
gtctcacatg gtgtgtaccc cagggtatgc acctgtaacc ctcctgctcc ctttattcat      720
ttagaaaagg tgctgacttt tctgttgagc acctgggggtt acagtaataa gtaagtctca      780
gcagaagatg tgagaagagc tcaccattag tgccgtgccc tgtgctggaa gaagggtgga      840
taactccctg aggatgagtt aaggaagact tcctagggga gaggagatat ctacgtctag      900
gaagaggagg gggcataggc attccatgta aacttaacac ctgggttacg atctggaagg      960
atgaaaaagc atggcttttt ttggccaggc gcggtggctc acgcctgtaa tcccagcact     1020
ttgggaggct aaggcgggcg gatcacgagg tcaggagatc gagatcatcc tggctaacac     1080
ggtgaaaccc cgtctctact aaaaatacaa aaaattagct gcgcgtggtg gtgagcgcct     1140
gtagtcccag ctactgggga ggctgaggca ggagaatggc gtgaacccag gaggtggagc     1200
ttgcagtgag ctgagatagt gccactgcac tccagcctgg gcggtaaagc gagactccat     1260
ctcaaaaaaa aaaaaaaaga aaagcatgg ctttttaaaa attcttggcc ctttgtcctc     1320
tctgggattg gagtttggga catagagtgg ctggatgggc aggtaggta gaagcctggc     1380
atttgtgtcc acacttggtg gggctgtctc tcactcaggc ggggagacaa cccccttccc     1440
aagaatgctg atgggactat atgctacgac tccacccact acaaggagac ttggaaggct     1500
ctggaggcac tggtggctaa ggggctggtg caggcgctgg gcctgtccaa cttcaacagt     1560
cggcagattg atgacatact cagtgtggcc tccgtgcgtc cagctgtctt gcaggtaagg     1620
acagcaagca gatgagtggt ttaggggttg tctgctcaag agcatgaggg agcagacgat     1680
ggatctgctt aagggagata gctagcaagt tgtcagagtg ttggtgcaga agtcctctgc     1740
ataaaggtgg gcattgaagc agtgggagag aatgaaattg ccgatgggaa atggtgagaa     1800
aagcaggctg aaggggagtg gaggagtcag caataggggg tggtccagac atgcatgtct     1860
gggatgggcc aagcaagctg ggtgtcacca cttcatggtg atgggttatt ctttggctca     1920
```

6908

```
ggtggaatgc cacccatact tggctcaaaa tgagctaatt gcccactgcc aagcacgtgg      1980
cctggaggta actgcttata gcccttttggg ctcctctgat cgtgcatggc gtgatcctga      2040
tgagcctgtc ctgctggagg aaccagtagt cctggcattg gctgaaaagt atggccgatc      2100
tccagctcag atcttgctca ggtatggggc agtcttaggg agagggccct gggttgggag      2160
gcaagggtta agggatttct tatttcagtg tctgggtgag gctgaggatc ttgccttgtg      2220
atctggaggg aggccactgt aggcatattt cccatttcag cagggctcag gtgctccagg      2280
agcttaggga agctgcatgg ggaacaaaat agtgcttatg aatactgacc ccttttcctc      2340
atctgtctaa tcccccaact taggtggcag gtccagcgga aagtgatctg catccccaaa      2400
agtatcactc cttctcgaat ccttcagaac atcaaggtac ttggtaatgg gttctatctt      2460
ctttagctct ttgggacatt ttcttggccc tgactctacc tggctaaaaa ggcagtgttg      2520
tggaacccca gcttctgctc acaaagctgg ctttcttgaa ccccactctc catcctcagg      2580
tgtttgactt cacctttagc ccagaagaga tgaagcagct aaatgccctg aacaaaaatt      2640
ggagatatat tgtgcctatg cttacggtga ggatgtatca gcctcctaga cttggggaat      2700
gtgagatttg gggtgggatt ctggcccagg tgtgacctaa ggcttgctgg ttgtgagaag      2760
gacacaatgt tgtgggtggg attgctatgc tggacatagt gccctcattt ctctttattg      2820
agctcaggga agtagtatgg ctcagggata aggcatataa cctgtgagtc ccagtcctgc      2880
ttcttgatat cttgtaacct agagcaagtt attaaacttc tccaagcctc agcttcctat      2940
gtgtaaaatg agcccagttc ctgacatgta gtagattctc agtaaatgat atgaggagag      3000
cccagaaggc gttgttgacc tcactcgagg gattgggggtt gggaggggaag tcggctgtac      3060
ttagggaaat aaatggttcc tggcctcttg atctcagttc agactgcaaa ctcttagggg      3120
caggggtagc tacatatcag gctatggggtt tggtgctaga atggtgttga tactgtggtg      3180
ttctctgagg atggggatcc cagccaatgc catctggcat agtgctgtac acaggtgagt      3240
ttgtttagga agatttgggg aagatgcctg gagtctttgg aatggcaact cctgctgatg      3300
gagtaatcta tctgtctctc tttccaggtg gatgggaaga gagtcccaag ggatgcaggg      3360
catcctctgt accccttttaa tgacccgtac tgagaccaca gcttcttggc ctcccttcca      3420
gctctgcagc taatgaggtc ctgccacaac ggaaagaggg agttaataaa gccattggag      3480
catccatat                                                              3489


<210> 9339
<211> 123
<212> DNA
<213> Homo sapiens

<400> 9339
ttgttgccga ggctgaagtg cagtggcaca atctcagctc actgcaacct ctgcctcctg      60
ggttcaagtg attctcctgc ctcagcctcc tgagtagctg ggattacagg cacctgccac      120
cac                                                                    123


<210> 9340
<211> 134
<212> DNA
<213> Homo sapiens

<400> 9340
gatggagtct tgctctgtca cccaggctgg agtgcagtgg cgccatctcg gctcactgca      60
acctccgcct ccttggttca agcgattctc ctgcctcagc ctcctgagta gctgggatta      120
caagtccccg ccat                                                        134


<210> 9341
<211> 134
<212> DNA
<213> Homo sapiens

<400> 9341
gatggagtct cgctctgtca cccaggctgg agtgcagtgg cgccatctcg gctcactgca      60
acctccgcct ccttggttca agcgattctc ctgcctcagc ctcctgagta gctgggatta      120
caagtccccg ccat                                                        134
```

6909

<210> 9342
<211> 123
<212> DNA
<213> Homo sapiens

<400> 9342
ttgttgccga ggctgaagtg cagtggcaca atctcagctc actgcaacct ctgcctcctg   60
ggttcaagtg attctcctgc ctcagcctcc tgagtagctg ggattacagg cacctgccac   120
cac   123

<210> 9343
<211> 8737
<212> DNA
<213> Homo sapiens

<400> 9343
tctagggaga aggtgcttta ttctgggatc tgcgtaccag gctggctggg gtgctggagt   60
gggaagggga atccaaggag caaaccaaga aggtcctagg gccagcctag gcctccacgg   120
cccggccgtt gatgacgcgg atgtggcgga tgacgtcctg gatggcttca gatgttgtgc   180
cctggccccc gatgtccgga gtgtgcatct gtaggacaca ggcaggctcg gcacacacca   240
ggccctgcca cccccccgctg tctcctgtga cgtgcaggac tgggattgcc acaggaggga   300
agtggcacca gctaagggcc agaagatggg gccagatcca gtaccatcct cccctggggg   360
ctgtggtcag tgcatgaggc gggctacagg aggctgcagg gggagactgg cgggggcagc   420
agggtagggt gcgaggggaa cctcacattc tcattgtcca tggatgccag gacagcctta   480
cggatggagg tggcatagga gtgcagccta gaggatggga cagccagcct tcagtccctg   540
gggcccggag ggctggccag gggcttgcgg ggcactggga gccactcact tgaggtggtc   600
cagcatcatg cagctggcca gcagggtggc cgtggggttg gcgatgttct tattggcgat   660
actcttgccg gtgttcctcg tagcctgggg aggcaagacg aaggagagtg ggtggagggc   720
agaaggatgc cgggcagtga ctctgctcct gtgacacgtc cagaagaagc cactccacag   780
ggacaaaagc ccaccagcgg gtgccagggg ttggggggaag gtgtggggac agatagctta   840
tggggacagg ctttcctcgt ggggtggtga aaatgttctg gaatgacctg gtggtgacgg   900
cagtacaacc ctggatatcc aaaaaactac taaatcatgc attttgaacg ggctaaccgg   960
atgggatgag tgtgcctcac taagtctgtg aacaggagaa aggcggcaag ccgcggcact   1020
gccaccggca ctcactgttt caaacaccgc gtacacatgg ccatagttgg ccccagccac   1080
aaggcctggg cccccgacca gtcccgcgca gacattgttg acgatgttgc catagagatt   1140
gggcatcacc atgacatcaa actgctgggg ccgggacacc agctgcggga caaggagggg   1200
gctggctgag gagcagattc ggaagcatgg gtgagagaag cccagggcac tcagggcagg   1260
gggacagcac tgggcaggct aatacctgca tggtggtgtt atccacaatc atgttctcga   1320
aggtgatctg agggtagcgg gctgccacct ccctgcagca ctggaggaaa agcccatcgc   1380
ccagtttcct ggtggggggt taggaatagg acaccagctt ggccatcgca acagtcagcc   1440
agagggacgg ggcgtgcaga gggccccagg aggctggggt ctgaattcta acctgtccct   1500
caccagcaaa atggacagaa tcccacccca cctcccctaa gtgtgggttc tggcaaggcc   1560
tcgagggcaa cagggcactc gcctagggtg gcacctcggt gggtagctgg gcttttggac   1620
cacaaatccc tcagagcagg cccaagcagg ccactgcagc tgcttctgga ctgctcgcag   1680
agaggtcagg ggacatacat gatgttggcc ttgtgcacgg ccgtcacttt cttgcgcccg   1740
ctctcctgcg ccagcttgaa ggcatactcg gcaatgcgca gggacttggc cttggtgatg   1800
atcttcaggc tctccaccac tcccgccaca ctctgaggag ggcatgggga aagagaccc   1860
atgtgctact gaagagcagc actggccaaa caagctggcg cgaccgggcc accgtgggaa   1920
gcaaccctgt ctgcctattt ctggcttctc cctcgggcac agcccctgcc ctctaagggt   1980
acacctgtcc ctggttcctt aagctctccc cttaatcttg acgctggggg ggctcatctc   2040
gggcccccca tgcacacctc atgctccagg ctgctgtact cgccctctgt gttctcccgg   2100
acaatgagga tgtctatgtc cttgtgccgg gtcaccacgc ctggaaggct cttacagtgg   2160
atgacgttgg catagaggtc caggctggtg ctgggagggg acggagaaag aggctgctag   2220
gcctgacagg tggctgactg gagccagact ccactggctc accccacctt agccccacca   2280
agcccccagc ccgcacaccc ggatctcacc gaaggatgtt gtttcgagat ttgtgcgacg   2340
gtggcaggtt atggttggtt tcgatgttgc ctacaaaaca caacacaggc ttagtggcac   2400
tgcccatccc cgccccacct cagcagggca gctgaaggct ccggggtca gaagacttgg   2460
ggagcaaaaa tgtttcctga acactagaat gctagaatgc aacttccagc ctaagcccca   2520
cgaggctaca cgctcaggga tctcgaaggg cacctggtgc agcaggtgct ccatgaataa   2580

```
cccctgaacg acggaatgaa caagtcaata aatgaataaa ggctggcaac cagccaggca   2640
gccatgccat tctccatcca ggctctggag caacagaaag tgaccactct ttactaacag   2700
gttggccggc caggctggag ctagcaaggt ggccttggcg gtgttactgc caagcccccg   2760
catcaaggca ccacactcag aggcaggcgg gggctgcctg gagaaggcca cggattggcc   2820
ggaccctacc ctacgaccca ggacacctgg aggaagggaa gcagaggcca gtggccgctg   2880
gagacagcag tcagagggcg ccaagcagag gccgcctgct ggtgagcggt accccaccca   2940
gactgctcca ctcacagcgc gggggtcccc tgtggctggc acaaaggccc ctctacttga   3000
ctgccagggc ctggggctcc ccctgggttc atctttgctc acacgctcct cacacagtgc   3060
aagtaatggg ctgagtgtgc aaaatgagca atggaagtag tttaaggacc tcaagtgaag   3120
ccccaagaat ccctgcctgg gctgtgccat ccacctccag gctggctgca gccgaggagc   3180
caggcagagg gtcggaactg catctctgtg atacctggtt tgtgaagaaa gatgctgagg   3240
gtcaaagctg accccagcag agaggactgt ctcaggaggg aaggaggggt gggagggaac   3300
ccatcaggga gcccgtcact ggacaggctc acacacagct gctctcactc gaatcccagc   3360
atcgcagcgc aaacaggccc gaggaggcgt ccacccagtc tccaagcacg agggtcctct   3420
ctagccagac aagccctgaa atcagagccg tggggcccca caagagtcag ctcagaggga   3480
ggtaaaagaa atcacagggg ctgggcacga cggctcacgc ctgtaatccc aacactttga   3540
gaggctgagg cgggcagatc acgaggtcag gagttcaaga ccagcctggc caacatggtg   3600
aaacccactc tctactgaaa atacaaaaat cagctgggcg tggtggcggg cgcctgtaat   3660
ctcagctact cgggaggctg aggcaggaga atcgcttgaa actggaaggc agaggttgca   3720
ctgagccgag atcacaccgc tgcactctag cctgggcgac agagcgagac cccatctcag   3780
aaagaacgca agaaagaaag caagaaagca aaaaagcaag caagcaagaa agcaggaaag   3840
caagcaagaa agcaagcaag cgagcaagta agcaagaaac gaaggaagaa agcaagaaag   3900
aaatcacacc tagggcccca tcctggcccc tggccctgga gctcaccctt cagggccacg   3960
cggttccggc ggatggccat gatggcattg cgaatgtcct cttcatcagc attggaactc   4020
acgtgcacct cttcaaagtc cactggtaca catgcgtgcc tgaggcacgg cagggtcagg   4080
gaggctggcc cagacccccc cgcacctcct ccaggaagcc tgcccaggct acctctctcc   4140
tgttgctacc tgccctgacc tggctctgac tgagaaggga ctgggcccac cttcactgac   4200
tgatggggac acgcttgaac tccacaatgc acactgtggc aggactggtg ccaccttccc   4260
cgagcccagg ccagtctggc gggatcacag gccatgggac gcaaggcctg ggcttacagg   4320
tcgtcttgcc atggcctcac cgagtgcttc tgggcgcaat gcccctcttg gcacaaagtc   4380
ctcagggccc cctggctgag gacaaggcgg ggacccagga gctccatacc tgaagacgga   4440
cttgacatgc agcatgagct ctggcccgat gccatcccct gggatcatgg tcaccgtgtg   4500
ccgcccgcca tacttagcgg acggaggctg tgggaggcag agggtgaagg tgggccttcg   4560
gggatcccac atgcccccag ctcggccccc atgggctcaa gccaattccc ttcttcccac   4620
tggcgctgac cccacaggct gccccgtcac aaggtgccaa cttggggcag ccccgtccca   4680
gacagggctg ctcatccagg gctcctgggt cagcagcagc ccaccccccac ctggaattta   4740
gttaacccca aagcaactaa gagcccccca aacctaacag gcagagaaga atactcacaa   4800
ttgtttgttc ctagaaagga tgagaaagga agaagacaca atcagccaag gttccaagag   4860
caaggccgtg accaggaaag tgggaccttt tcccaggggg atgctggcta gtacaactcc   4920
cagaagaggg gtgggtagcc cctggagacc acgtctcaga ggacaggaca caggccgtgc   4980
acacacgcgc acaattgcgg ccacatggag aaagacacat gcgtgggcac gggcaggtac   5040
ttactgaaaa gatgttcctc gaggggacct cgtgggcgcc tagaacctgg cagagaccaa   5100
atgccagcgg ttggtttgat gtctaaccca gaaagccaag ttggaaggaa aaacgaccg   5160
tccccactgt gcccaggcag gtccctgtc tgtgcagcat ggcccactgc caggggcaca   5220
atagataatt agctccaaag cctcagtccc caggccggc ccgctggagc acctggaaag   5280
tagaaggcgc tccagcctcc tgcctccttc cgctcttcag aaaatttctt aaaaggcgtg   5340
tccctgccct ccctcctctt ttttgcttct gattattttt ttggccagtt attcccgctc   5400
agcgatgttt gtaacatgca aaaactggca aactaaccct ggtacagcag ggaaatcatt   5460
acaacaaacc acagatccat gacaacagtc acgttatcac ttcgccgatc acttttttctt   5520
attacaaaag cagcatgtgg tcgctacaga aaaagcagaa tagggagata agaaggtagc   5580
acccagcctc cggcctccct gagacaagca ctgctggccc cctggggaat ggcccttcgg   5640
cattagaaat cgaaacaaa tgtgtaggga catccagcca tttctggaag gttgataaca   5700
gaaacccaac tctaggaagg ccttcggaaa ggactgctgg atgccgaatg tccccaacgc   5760
cctgactgga aatgccggac agcttcagag ccaaagctgc ctgagccaaa tgtgccaggt   5820
gccaagtgac ctgctgtcct ggaagaagcc ccaccagaa cacacctgag acggtggcag   5880
agccaaggtc ttccctgtca cttggggatg ccctgccact tgaccaccag gcagcagcaa   5940
agtgttccag ccaatggcag aagcatcata gccattggcc aaagagccat gccttccagc   6000
tagaagtcca gaaaggctcg ggcggagtct gacctctccc tgtctgtgtg tccctggccg   6060
gcactcatca gtccaagcca ggggctagga gaggtgccc acaaggacca gagccccgag   6120
gatagctcag ctgatctgtg tggcacctgg atctgcaagc acaggcacgg tcgggacttt   6180
tctgtcttct ctctagcgct tatcaacggg tcgggacttt tctgtcttct ctctagcgct   6240
```

                                        6911

```
tatcaacatc tgaaatcatc ttatttgggg gctcttgtaa gcacgcagaa agcggcttcg   6300
atggaccttc ctccagggag cttttccctga tgccctaagg ctactgagct gggaccctaa   6360
ggccctactt acccccttcc ctaggttatc actgcattgc tccctcctca accccctgagc   6420
ccgagaggag gggccaagtc agtgtggtcc aatactgtca ccctaggacc cagcacagta   6480
cctggcccag agctggcaca taaggaacat ttcctgagtg aacaagcaca tcagaaaatg   6540
aaaaaagatc tggagactag ggaggcctcg gtccaaatcc accatccact cttcttgaga   6600
tggcttcatg gcctcatctg aaattcacag aacggaggta cctactttcc gtgactgttg   6660
gaaagattag gggacaggag gtgtgtgagc tgctcacagt agctagtgcc acacagcacg   6720
cctgccccctt caccccactg gcccctcagg tcagagttca aggctggtgt ccctgggagg   6780
tcacgggtgg acccctgcag ctcccagcag tagttcctcc tgggcttcag ctgtggcagc   6840
aagccaatct cctgagagca tggacctccc tcacagatgg caacatcacc accagggctg   6900
agctgaacct ctctgccacc cggtccctgt gccaggtgtt cctttgggct ttggcaaaag   6960
acccagagag cgctccagat ggacttccct gaccttactg tacagatgca ggcaccttcc   7020
ttcaggaggt cgcaaaggct ctgccttgtg ccctgacttc cctgtgaagc caccaatcaa   7080
aggagccaag tgtgaggcag gatgcaatat gtacacgcct cccgctctcc catcaccctt   7140
tcatggttcc atggaaagaa agaacatcca caccccacat cttatgcctg ctgaggcttc   7200
tgtctttggc atatttctgt tggaccatgt gtcaatggtg gctgcatgtt ttcctatggc   7260
gtccaaatca gtgggattca agacctgggg ttcctctgta agggttctca cacccaggac   7320
ggtcagtctc agggcaaggc actgcccagc tacccaccgt tcactgtccc ctactcccac   7380
cccaacgcac acacaggcac acacacaggg gaggtcaggg aggaggcaca catgtcttca   7440
ccaagagcct acaggagccc agttgctgga gccatcagag cctctggaaa gccactatat   7500
actgccgtcc tttcagcagc aaggtgggag aagtcagcat cgtcaagaga atttcattag   7560
gcacaagcag tctcccccag aggtcagaag gagaaaacat ggcaagtaga gatgtccctg   7620
gggagtggcc gcaaagtcac ggagttctgg aaggtcagag ttgacaggat cctttgagaa   7680
catgaagtct cctcccctct gggttccaaa ggggaaacta gaacccagag agaggaggaa   7740
atggcctaag gccacgcagt ggctcagtgt gggagcatgg cctagaggtc aaacctctta   7800
cccatcaggg ccaggtgctg gctggcagct gcttcagatg gtttccagcc cacctaggac   7860
ctaaattaac ctcttcttaa ataagtgtaa ggaaagaaga ctcggacctg aatacgcaag   7920
accgcacacg gagaagagca gaagcaaaac ccccgcagcc tcagaaaccc tagctccttc   7980
ccattccagg cgcctcgagg ggaaggcatc tggggctcta agactggggg actatggggg   8040
atgactggca aagtccggtt ctttgccacc gggataggtg gcaaagcggt ccacgagaga   8100
ggaaaccgtg gagaaatttg agtcccggaa ccggattccc gaagcggttt gagaaaggcg   8160
ggccgggata cgtgagtgac tgcctcagaa gggctccttc aaggacacta aggaggtgac   8220
agccgccgtg gcccactctc ccggcccgtc cggagggccc cccgccaccc gatgcagacc   8280
ccctggggga gccggtccag ggccaacttc ggccaatccc ctcagtgaca gcggaggcgg   8340
ccaatcaacc ccggcgcgaa gccctttccc cgccctggt ggggcccta gccaatcgga   8400
ctccagactg cttcgggtgc ggctacccca ccgctcccct gcgaccgctg ccgcggtccc   8460
gtggctcttt ccctgctcac ctcccaggga cggcagagaa gggctggccc gagcaccgcc   8520
ttcgcggcgc tgccggcgac ggtcgctacc ttcagcgcca tgacggaaag tgagagcctc   8580
cgcacgtccc gacacgcaga taccgctctc gcgagagttc gacggggtgc gaagtttcgg   8640
ggacaggcgc ggacccggta ctgcgcacgc gcgcggtcgc accgattcac gcccccttcc   8700
ggcgcctaga gcaccgctgc cgccatgttg aggggggg                            8737
```

<210> 9344
<211> 1886
<212> DNA
<213> Homo sapiens

<400> 9344
```
cagaggctgg aggccatgga ggctgccacc caggctgagg gtgaggggcc acagagggtg    60
atgggccgtg gagcgcagca aaggctgcaa gacatctgct cagcagctgc ctccaccccg   120
tctccccaga ctctggcttg agactagacg ggggcagcgg ctccacatcc tcttcaggct   180
gtcaccccgg gggcgccaga gcaggtccct ccccagcctc ttcctccccc gccccagggg   240
gcggccgtag cctcagcgcg ggctcacaga cctcaggctt ccggctcc ctcttctctc   300
ctgcctcctg ctccatcctc tccggctcgt ccaatcagcg agagaccggg ggcctcctgt   360
cgcctagcag taagttgggt ggcaagtggt gggcaggcag ggctggcagt agtcggacca   420
cttcagtctc cctgctctgc cttccccagc accattcggt gcctcgaacc tcctggtgaa   480
ccccctggag ccccaaaatg cagataagat caagatcaag atcgcagacc tgggcaacgc   540
ctgctgggtg gtatgagcaa gtgtgggaga gcagagtggg gggccctgct ccaagggtgg   600
aggcacaggg ccgctcttgg ggagccctac cccagtctgc agtgcacgtg aaccgtcggc   660
```

6912
```

```
tgggtgggca ctggtcctgc ccagtcaaca gcactggggc catggccaag ggcagggggcc   720
actaggaagg gatcagcctc agcctcacat cactgggcct gtccctcttg gaggacctgg   780
ggaccccgag gctcacagca aaccccactg agctcctcgg gtaggcggat cggggtgggg   840
caggagtccg tgggggcagg acagccttgg ccccagcccg tccccagggc tccccttgct   900
tccagcacaa gcacttcacg gaagacatcc agactcggca gtaccgggcc gtcgaggtgc   960
tgatcggcgc cgaatacggc cccccggcag acatctggag cacagcctgc atggtacgcc  1020
cgcccgggct gccctgtgcc cagggccagc agcccaccag ccagcagcct cacctcctcc  1080
cccttccagg ccttcgagct ggccactggt gactacctgt tcgagccgca ttctggagaa  1140
gactacagtc gtgatgaggg taaggggtga gggctctggg ctcagcctcc cggcctcccg  1200
gcctgcctgc ccccaacctc ctctttctgc ccacagacca catcgctcac atagtggagc  1260
ttctgggggga catccccccca gccttcgccc tctcaggccg ctattcccgg gagttcttca  1320
accggagagg tgagggcccg ggcagcctca ggccatgtgg ctgcagggag ggtgggacgg  1380
ggaccttgga ttctgcaaca gagggaacac tgggtcccag gagccagggc ctaagcagaa  1440
ggcaggtcca gagacaggga cagagcctga cgcccgctgg cctgcccgca ggagagctgc  1500
ggcacatcca caatctcaag cactggggcc tgtacgaggt actcatggaa aagtacgagt  1560
ggccccctaga gcaggccaca cagttcagcg cctttctgct gcccatgatg gagtacatcc  1620
ccgaaaagcg ggccagtgcc gctgactgcc tccagcaccc ctggctcaac ccctaggccc  1680
ggctgtggct ccacctccag ctctccgtgc cttaagggaa aagcgggaca gctcccacca  1740
ccctgctggg cgccagttct ccacaaccac agggcagaga gacgctggag ccaggcccgg  1800
ctctcagagc gtgttctgcc tgagacccccc gtgagggctc tcggagaaag tgtgtgtatt  1860
cctttcttaa taaagtgtgg actgaa                                       1886


<210> 9345
<211> 4005
<212> DNA
<213> Homo sapiens

<400> 9345
cgaccagctg ggcccctggc tcagggaggg gccacgtcag tgctgccaga gacgtcacaa    60
tgccggccca gccgttcggt gcgcgattgg ctgccgctgc cacttacgcg tcgctcttcc   120
tcgtttgccc ctcgtgttca tgggagctcg tttctttttc ctctaggcag agaagaggcg   180
atggcggcga tggcatctct cggcgccctg cgcgctgctcc tgctgtccag cctctcccgc   240
tgctcaggta gcggcccagc cggggcttct ttcttgcgag cctctgaccc acggcaggtg   300
gtgttggggg caggagggat gcgggggtcc ggcctttcag ggtccgtcgc tgcgggccgg   360
gccttccccc gagaggcagg cggccttggg acggggggac caaagcacct cgcgcacgtt   420
taccggcagc caggctttc cttgtctgcc catacgaaga ggagtccccg agcctccatg   480
gtgcgcccgg cccccaagct gcagcacgga acgtgacaca tgtcccggct cccgctccct   540
gcggggtcgg accggagcga agctctgtag cgctgagcga tcgcggccaa aaacgggggct   600
ggaggagcca cataagctag gaagggacct cagtgaggag agggagcaag agcggggcga   660
gttagatggg gagccaaagg tgcgcagggc cttgagtgcc aggccgaaga ctggcttttc   720
cggagggccc tgccttaccc ttaccagagt tttcggcaga gccgaccagg ggtcccgtcg   780
atttgcattc gtgaggggct gaggtctgaa ctccagagtg tgtttaggag gtggctgcag   840
cagccagccc cgggcccggg ggccaggact ggacaggggc ggctttctcc acattcccctt   900
ttctgccgtc cttcaggcca gtagccttgc tgcctgcaac gttttggcag cctaactggc   960
ctcccttttcc gcacactcct catctgcccc tcaggaattc cctgaactat agtcagggac  1020
gtatccagag gacaagcctg gccataaaac ccttcggggg ctcccctgcg ccacaggaag  1080
caggcccaac ttaggcagga cacagaaggg ctggcgggat ctagcccctg agaactgcct  1140
ccacgctgtt cctagggatc tgcctcctgt ggtccagacc cagagccttc tctgacgtcc  1200
tctgctgaag ccatcgttct gccagggcac cacatttgga cagcgggtgg ctgagaacat  1260
tcccactttg gggagccttt gtttcacacc ctctgatgta ggcggcagcc ttcctttcct  1320
ttgggcctct ggttatggag aaggctaagg caaggtcctt tctctcacag ctaacaagtt  1380
gtgcttctgg aaccagagtc tctcccgttt acttcttcag gaaacgctgg ggccagtctt  1440
caccttctgt caactggccg ggggcagaga cccttctct catcttgaaa gccccagtgc  1500
attgcctgcc tgcagccccc accccgatg tctctgctga ggatgccttc agtaactcgt  1560
ccaggccgtt tgtggctctg aattgaggct ggcgtggccc cgggcctcc gtgtcatagg  1620
tccaagtgtt ggcatgtatt gtccagtgaa tccagccccc acctgtcccc agttcgctct  1680
tcctgcacac ctccagaaag ccggccttgc ccctccccag ccttccttca cagccatccc  1740
gcctacgttg ccattgcatt gtgaccgag cacttggatc tgtctcgcat atcccacctg  1800
gaaggggcag gaagagcgca tgggtcccca gctgatccgt gctatgaggc agggccgggc  1860
catcctgccc tcagaccggg atactcgagc tggccttacc caggcatctc tccctcttcc  1920
```

6913

```
ccgcagccga ggcctgcctg gagccccaga tcaccccttc ctactacacc acttctgacg    1980
ctgtcatttc cactgagacc gtcttcattg tggagatctc cctgacatgc aagaacaggg    2040
tccaggtgag acagtggggt ttcagacagg agggcgggtg gggggtgctc ctcactgcta    2100
gttgatgggg gacctgtgtc gatagaggga gaatcaagat tccaactctt ggggtgccgg    2160
agagatcagg gcacggtgat gccagatcct agccagtgtt gacaggtcac cttcctcacc    2220
tgctttgtgt gctgtgccta cacgaggtaa ccctgggctc accacccgct gtttcctgaa    2280
tgagtatctg gaccgggaga aagggccagg agtcagccca ccccggttgc cattggccag    2340
tttgtctgtg tgggtgtttt gtttttgttt ttgttttttg tttgtttttt tgagataggg    2400
tctcactctg ttgcctcagc tggagtgcat tggcacgatc ttggctcact gcagcctcca    2460
cctcccgggt tcaagcgatt ctcctctcag tctcctaagt agctgggatg acaggtgctc    2520
gccaccatgc ccagctaagt tcccataagt ccaaagaagg aaatggggcc ttttttgggt    2580
atggccctct tagggtaaag cacccccttgg gcagcccact gggcacccct gaccccagca    2640
cctcccttgt agactcagga aatcactcag cccttttgat catcccgccc ctgctcacag    2700
tcaacagggt tcctatgcgt ccagttaggc ccggccatgg ggatctggcc ttgtgccccc    2760
gtagggaaga ccaatgcaga gggccagtca cgggattggt gagtgttacc tggtacctcc    2820
tgccagggac actgcagccc ccaactgggc ctagcctgcc cacctgcagg ccgtgtgagc    2880
agcgcacagg gctcctctgc ccacacccag agggggcaga aggtgaccct gcctttgttc    2940
cctcacccag aacatggctc tctatgctga cgtcggtgga aaacaattcc ctgtcactcg    3000
aggccaggat gtggggcgtt atcaggtgag gggccaatgg ttcccttgct aggggggctcc    3060
ctgctcccgg gtgtgacctg aagccccagg ggtggccggt caaccagggc caggggccgt    3120
gggctctggc tgccggagtg ctgcagtgtc ggcactggtg gtcagggtgg cccctccgtg    3180
tccactctgc ccacactctg ctcaacaccc aacccaggtg tcctggagcc tggaccacaa    3240
gagcgcccac gcaggcacct atgaggttag attcttcgac gaggagtcct acagcctcct    3300
caggaaggtg aggactcctg tagccactg tgctcccctg tccctgggga gcaggatggg    3360
ctgggttggg aggtgctggc agcaagtcct gagctgggtg gcctttctgt gatcctgtcc    3420
cttcctcagt gtctcttgcc catttctctc ctttcctttt ctggggcttg ggccggtgtt    3480
cctacctgtc tttccccctcc cctccccacc cccacgcc aggcacccct gacccagca    3540
cctcccttgc acctcccttg caggctcaga ggaataacga ggacatttcc atcatcccgc    3600
ctctgtttac agtcagcgtg gaccatcggg tgagtggcct ggtccctcct ccttttgg    3660
gttgttgggc tgagtgaagg ttatcctctc cacagcccca gctctgctgc tgggccgtga    3720
ttggccagca tgtcttggtt ccctggcgg aaggtgacca gggctggctg gtctgctcac    3780
ctgtactccc ctgagctggc ttgtgatctc cttttttca gggcacttgg aacgggccct    3840
gggtgtccac tgaggtgctg gctgcggcga tcggccttgt gatctactac ttggccttca    3900
gtgcgaagag ccacatccag gcctgagggc ggcaccccag ccctgccctt gcttccttca    3960
ataaacatca caggacctgg gactgcacag gacctggggc tgctg           4005
```

<210> 9346
<211> 5569
<212> DNA
<213> Homo sapiens

<400> 9346
```
tctgggtgtt gtttccagat gtctgtatgg taattgcatc agaaattgcc gtggatattg      60
taaaacatgc ctttattact aaattcaatg acattactgc agatgtatgt attttgatat     120
gcacttcaat gtttaaagtt tacttctgtt gcttaatttt taaaagttgt agaataatag     180
gagtttgtta atactttaag gtcagaattg taattttaag tttctaaaaa ttattacact     240
attgaaagta ttctgtttta atattaggca atgataattc catattcttg gggtagaagt     300
atagaccagc cagtagtcga agtcacagtg tcactaactc aaaatcattc tgatcagtta     360
acactgtcat aatctgttta aagactttaa aatcacattg tttctatttt aaaacttaga     420
ccatcaaaat ttttctctct ggctaggttt ttaaaatatt ttatatttaa aagttgattt     480
ttttccacga ttatgaatag gttcctgcta agtttagaa gacgagagcc tacatttttc     540
tggtgaaagt gtttaaactt tgagaaattt gttttatgtt ctaaccagat gttctggata     600
atttctagaa atagatatgt ggctatagat ttattgcata taaacataa gaaagtttcc      660
taatgtagtt ctcattcctg tctcagtccc aaaataaata atagttccac agttttctag     720
attttactgg gtagtacttt taataacagt ctcacagtaa tatttgtttt gtttcaaaag     780
gcaattattt aaaataaaat gcagttgcaa caactgtgat tcaattatga gtttctgaat     840
gttttaatat acttaaagta aatacagttt tgtacttttt tgtaaagcat tgataaagta     900
atttcaccat ttactttctc agctttctta atgcagaatg attccctttt cataggatca     960
tttatttagc atctgaagtc aaaattaata ggcttgattg agacacttgt gcacttttta    1020
gtggtaatga tcattcacaa gtgccttcat atttactatg ttccctaact tagttttatg    1080
```

6914

```
tcttttttcag cattcatttt tctcagaagg cattattggt tagacaaaca gtaatttttt  1140
taaactattc atttaatttta aaatttcaaa attattttat atacattaca ctacttaaaa  1200
tagtcactct tccccaaatt ctaaactctc aggatcatag tcgttggata tttattcccc  1260
tttaaagaaa aaccttthaga agatctatga atgttaacag ttcggtggaa ttgaggttac  1320
attttacctt tactgtagga aaacaaataa gaaattatgc ccagatgtca gcttggttat  1380
tagcacttgt tcctggttaa ttattaaatg tttttattaa taaagttgca gtctttccac  1440
attatatatt tttactgtat tacttgatat ttcattcttg tttgttttta ggtctacagt  1500
gaatatagag ccagtcttgc ttttgacctt gttagcagcc gacagaaaaa tgtgagcatt  1560
tatcaagggc gtagtctgaa attaacaaag gcatagtctg aaattaactg aataatgatt  1620
aatttagcat gaaatattaa ctaaaggaaa gctacataaa ctgcctactg atctctattc  1680
tcaacactaa ataaacattt acaaattaag aataatagta atacttaaca ttaagtagta  1740
tatgctcttt gcagcatttt aagttattca actttgtatt taagacttgt gaacatttgg  1800
atttccacat cattttataa gtgccaggtt ctgttcttgc tccatagcct cacctgttta  1860
gaacatttgc tggtaataag tgaatagtac ttttaaaatg ctgtttaaat cccataaatc  1920
tgaatctttt gcttctttct ctgttcaggc atacactgat tacagtgact ctgtagcacg  1980
gaggatgggc tttattcctc tcccactagc tgttttagta agtgcatact ttttaatgtt  2040
ttttgtaaca aagtagccat cattatagaa tattaataaa tggattatta atatgattgt  2100
ttcaaaagga cttgatataa aaattaaggg taaataactt ggaagaaaat tttgttttaa  2160
attatagcag tagcttatat atccaaatat ctattggttg agccatccaa·tagatgagtg  2220
acgcttagct gtttttatgta aatggctttc ctaacaatga gaatactctt ttttgcttat  2280
tcatttagta aaaaacattt tttaatggaa atatctgagc atggtcatta acgtggccac  2340
tgcaacacat attggtggaa gtataaatta atccagtgtt tctacaaggc aatgtgacag  2400
tatcatgctt taattcagtc atttcatttc taggaattat cctaaggaaa tagttataaa  2460
agacacacaa tgatttatgg gcatggcttt gcatttcagt gacatttgta ataataaaaa  2520
gttagaaaca aacgaaatag gttaaaaaat tatggtatgc ccaaatgaag acatattctc  2580
tatcagtggt aattaatact ttttaaaaat tgtccaaact ttttgcaatg aaaattcctg  2640
cttttatacc caagaagtat gtattttttt tttactcggg aggctgaggc aggagaatgg  2700
cgtgaacctg ggaggtggag cttgcagtga gccgagatcg tgccactgca ctccagcctg  2760
ggcgaaagag caagactcca tctcaaaaaa gaaagaataa aaagaaatat gtattttttt  2820
caaaagcact actgaaactt actaaatcaa ccctcaacaa gtcatcaact ttgaatattt  2880
taatgaattg cccacaacag gcttgcaaat agtttctagc caggttaggc tataataatg  2940
ttaattaaga cgatttgttt agcctggctt agtggcatgc acctgtagtc ctagctactc  3000
aggaggctga ggcaagaaaa aaaaatttgc tggctgcact tgtatttgat tatgttcttt  3060
cttgactacc gattctaaca tcgaaacaga tgcaaccagc tgggcacagt ggctcacacc  3120
tgtaatccca gcactttggg aagctaaggc aggtggatca cctgaggtca ggagtttgaa  3180
accagcctgg ctaacttggt gaaaccccat ctctactaaa aatacaaaaa ttagtcaggc  3240
gtggtggcag gcgcctgtaa tttcagctac ttaggaggct gaggcaggag aatcacttga  3300
acctgggagg gaaggttgca gtaagccgag atcgcgtcac tgccctccag cctaggcaac  3360
aagagcaaca ctccatctca aaaaaaaaa caacaaaac aaaacaaaac aaacaaatgc  3420
aactgtcttt tttgccaaag gatatctaga cttctatagc tgcagtctca tgcaaatcag  3480
ctaagaaatg tgtaaagaaa gtgaaggtca taccagctat gttttagacc agcttccttg  3540
actttttttt agatgacaga tgattaatag gcttaatgct atttaaattt cagtgtgcct  3600
ttacagacaa ccacatccct aaacattttt aattatatta atagcttgct tattacatca  3660
taatatagct ttcttttgct tcggaaaagg aactcctaga atttggaaa aatggaggct  3720
tctaaataat aaaattgttt gttaaaggct taagagattg ataaaataga atattaaata  3780
tttccgcatt tgtttactac aactagaaat atgaaacata caaatataag gataaaccta  3840
caaggcctga attttttttt tttgtaagg attggtcaga tggttggatt taaatatgat  3900
cctgctttgc caaataataa ttgacttatt tgtctagtaa cttgtcagaa aactcatagt  3960
atgaactttt tttgatttag tatttaaaaa ttttcttca atccttgttt tattctttaa  4020
atgagttttt atggctgtta taccaaaata tttatgaata attaataatt gacaaaacac  4080
ttttggaaca cctgcagtgt gctgaaaggg ggtcatatag ttaggcagag atctagtggg  4140
cttccttcca tagcactttg ctcacagagc ttcgtcgtgt gccacagctt tggcgggcat  4200
ccaggagcct tgagaaatac atcgaggcct ctgtgacaag ttaattcttt aattaaggca  4260
caaggatggc aatttttttct tctaagcgtt acattgggtc gtaaatgat tttatatccg  4320
aaaaaaggaa gaaaaaatgt gtattaaagt ctcatggaaa ttagactgag taaaagttaa  4380
ctgataatat gctaggtgaa agtatagtta tttaagcctt aaatgtgatc attggtttgc  4440
ctttcatatt aatgaataaa atcctggagt catgttaact tcagtcacaa ttgcctatac  4500
agtagacatt accctgtaga gactgtgaca cggttgaggg cttccattgt cacttttctc  4560
atagtgagag tttattgaac atatgacaag ccattgcccc agctcttccc aattgttctt  4620
ttattaaaag cattttaaa tgtcttttta aatgtgtacc attatgatgt ttatttaaga  4680
taccctaata gactttggat aacttgacat tactagataa gacgacttct ccctaattct  4740
```

6915

```
ctatttctct tttaacatat gggcatagca gcacttgtaa catgtggaca ttttacttta    4800
actgattcca ccagatttat tcagcagact tccaaggata atgctttat tcctttattt    4860
ctgtgaaaga agtaagaaaa tggatagtta actgtatcca aaagagaaaa ctgtttcaat    4920
gtttaattaa tttttttaata gtgtttagtt tttctaaata caaaacttтт aaggttccat    4980
ttttcctgtg ttccctgtga gttactgggg gttcataaaa gagtcaaaga agaaaggacg    5040
gagggcaaaa aaagcaggaa taaggaaaca cccaccaaat aattctagct ttggtgtgga    5100
cacgtgtagc aagatgaaat catttgtact ttgcagaatg atattttata aaaatcagct    5160
gctttgcatc cctgtgaggt ataagtgtga cattcatgac ctaagtatag ggccgaactt    5220
agagagtcca caggagtcaa actgttgcac tagccacagg catcccagat ttgcttgaac    5280
caatccaaat gtaccacaga aggtttcaca agcaggcaga ttttgataca aatcaacaaa    5340
tctgccttct tggattttta dacaaaggcc atagatatat gcctaaaatg ttaaagtcag    5400
catggagaaa tctttttaag tattaactaa taactctgtg gttgtgtgtt ctgtttgtgt    5460
gttttttgttg ttttggtttg tttctggcta gctcatcaga gttgtaacaa gctcaattaa    5520
agtgcaagga atcctgtctt atgcctgtgt catactcttc tattttggg                 5569
```

<210> 9347
<211> 851
<212> DNA
<213> Homo sapiens

<400> 9347
```
gacatacaat gctgaacttt cccccaccac acccagtttc tcctctttcc ctccagactc     60
actcttgcca gctaaggtgg gaggacttgc cagcctctgc cattactgct ctctgcccag    120
tgcccctcag ggaatagctg cttagcagca gggcctgggc ctgggctggt ctagggcttg    180
gccaaaaaga agccagacaa gtgccctgcc ttgatgtcac agaaattccc aacaacaaat    240
agacaacaac tagaaaaaca agtcactcta ttgacagttg gtaggaatca ttaggaagaa    300
aagcacagta gtatgaggag atgaatggga gaggcagata cagctgcctt agagggtggc    360
caggcaggc ctctctggtg agctggtgtt tcagtaagga agggagctgt gcagccacct    420
gggaagagcg taggctcagc agaagggcac ggggacacag gcctgatgga ggaacagcag    480
gcaccaggca gctgcagtag tccatgagca gccatggggg aggagggccc ggggacggga    540
gactacgaaa ggagctgagc agaagatggc atggtggctc atgcctgtag ccccaggact    600
ttggcaggct gggtgggagg attgcttgag cccaagagtt tgagaccagc ctgggcaaca    660
tagcaagacc ccatctctac aaaaaagaaa attagctggg cgtggtggca tacgcctgtg    720
gtcccagctg tgcaggaggc tgaggtggga gattgcttaa gcccaggagt tcaaggctgc    780
ggtgagcgat gatcatgcca ctgcaccaca gcctgggcga caatgcaaga ctgcctctta    840
aaaaaaaaaa a                                                          851
```

<210> 9348
<211> 2757
<212> DNA
<213> Homo sapiens

<400> 9348
```
gactaggaag gatgtcaggg cttagaacag ggttgaagaa agggacaaaa agtctaaaaa     60
cctgagaatt tgtgtatcgt tgaagggcag taagtgatgt acatggcctt taccataata    120
aaaaggaagc tattcaagga agatgctgaa gaggtgtcaa ggtgataagg ataaagaact    180
atggtgtgac aaacaggtat cagtaaccat ctaaaaggat gggcatggca ccatgtgtag    240
gtgcaaagga ccacatagta agaccattgt gaagtagttt ttaaaaaagt caaaagacag    300
agaacaagca aaggaactaa taactaaagg aacaaccaaa ggaactagca gttagaaagg    360
ggaagatctg gaactcttaa aactaagtca ttgtttggct tatgggacaa accaaacaga    420
tagaatggtt gcagtcccta ttaagccaaa aggacatgaa aacataactt cgtcattttt    480
ctctgacacc attgcatctt agattgttaa cctcttccat gatagaacac tgtataaagt    540
tcatatttag agtgaaaatg ctttctgtat ccaaaccatg taccagatcc atgtcttgtt    600
atttattacg tttcaacttt ttatgggttc ttttctctct ttaagaaaat atccaaaatt    660
gcatcctaat tataaaacaa gttaaaagaa aaaaaacacc attaatagac agttcatgta    720
tattcttcca gtaatttttc tcggttatca tatacataaa aacatgtata ctttattgtg    780
ctttacataa actgaataat actaaatgtt taacctaatc taactgaagt ttttccatga    840
taatatgtgg ggtgattttt ttaaaattgt atagcattct agcactaata aacatttcct    900
tattatacat ttagattatt tttagatttt cattgtataa acaatggttc agtaaacata    960
```

6916

```
cctcaacctt tatctttgaa tactttagga agtatatttt tttaggatgg tcacctaaaa    1020
ttagaatttc tggataaaag ggcatatgca tatttaagac tagtgaatat tgaccgggca    1080
gagtggctca cacctgtaat cccagcactt tgggaggcca aggcgggtgg atcacaaggt    1140
caggagatcg agaccatcct ggctaacaca gtgaaacccc atctctacta aaaatataaa    1200
aaaattagcc gggtgtggtg gcggtcgcct gtagtcccag ctgctcagga ggctgaggca    1260
ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccaatatagg gccactgcac    1320
tccggcctgg gcaaaagagc gaggctccgt ctcaaaaaa aaaaaaaaaa aaaaaaaaa    1380
aaaggcatac tggatttta tcccttatcc atagccttac caatgctggc tactgtccat    1440
cttttttaaa tacttaccaa atggactaag agggattttt cactgttta atatgattta    1500
tttaatttt ggtgcagtca tactttcttg taatttgtca tttgtatatc tctcctgtga    1560
attgcctata tatatttcat ggccattttc tcattaggat ttcttttttt cttaccagtt    1620
tctagaaatg cattgtttat tcctcttccc aacttggcat caagtgtatc ttatgttttt    1680
ctttctcata aattagaatg tttcatttc agttatatta attttccttt tttcttaagt    1740
acattaaaaa aggtacaaca gtgaaattct catttgtatt tgtcactctg tttcttattg    1800
gatgagtaat caggattttt ggggaaataa ctggatattt catacagcaa gcaaataatt    1860
caaagcatgg gaagttaaca tagaggtggt agtggggatg cataaaatcg tagtcagtaa    1920
gttaacaatg agggaaataa ttaaatttca ctcagtgttt acaaacattg gaaaacattc    1980
tgacctgatg ggtctgattt cttttgttgg aattgttttg tctgtttaag gataatgtga    2040
attactgtgt gtgtagtata attagaatat accacagtat cttaaaattg tttagcatat    2100
actttaatca gttggatctg cttcaccctc ttctccccat gaagaaaatt atatgttaag    2160
tgctcatacc atatctactt atcttcagta actatattta gccttagcat tacaccagcc    2220
ttacagcctt attcattcat ttagtttcta aacattaaaa tcttaaatac tttttgttta    2280
aattagttat tattttgttt ttattttttt ttaatttcat tttttctttt tatcttcttg    2340
gttaccaagt tttagtgagt taagtggctg tcagagtatt ggaagggggt ctgtttgagg    2400
atgaatggta ggaattttac atttgatgtt gtcttatttt aatgagtcaa tacagaaagt    2460
acttcagagt atttatgaaa agtgtaaatc taatgttaca tgagaatgtg gctaggactt    2520
tatggttttt aaatttctcc attctaaaat tatgaagatc aatttatatg taaatcttac    2580
gcattaagaa catgcttatt gataaatcta aatctctatt ttagagcaat atactttgct    2640
gcttattcaa actgcaagga aaagttgaat gatgtatttg atcctgattc tacccaagta    2700
catatgattt cagctgcaat ggcaggtatg aatgtataat attaaaaaaa aaaaaaa    2757
```

<210> 9349
<211> 268
<212> DNA
<213> Homo sapiens

<400> 9349
```
cccttatcgt attacaaatt gtttttaagg cttttgtat ttattaattg tcagttgatt     60
cactgaagct ttaaaactgg aagggacaat ccaaaggtca aaagagtgaa atacaatcat    120
ttaccaataa ggaaaccttg ggcaaattat gtaatttatg tgaacctctc ttagcttacc    180
catggaatga gtcaagtggt ctacatagat ttggattttg agaattagtt ctttcattta    240
gtgttataga gattatcttg ttacaact                                      268
```

<210> 9350
<211> 8062
<212> DNA
<213> Homo sapiens

<400> 9350
```
gctgacgtgt gcagaagtcc ttcttgtcct ggtcgttgtt cccgtctgag taccagctcc     60
ccactgccct gagggcgggc cggcctgcgg cggagggaaa aaggaagagg agaaggaaat    120
tgtcccgaat ccctgcaggt cagtacctgg aagattccat aaagtcgggg tgcttgaggg    180
cgtagggccg agaccgtcgc gggtactgag gcgcctccgt cgtctctccc actcgccgcc    240
cgctttccaa gacatatgtc ccgcttgcag cccatttcga tgctgcgaaa cggtgagctg    300
cggggtgttt ggggaagagc tcagagactg ggaaatggga atctgctggg agcctagggc    360
cgcaatccgg aaagggagct gtggcctggg tgttggcccc tagtccacca ggacagtgcc    420
ggaggggaat ggctggatat gggggcgggg gtggtgagat gcaacgcgat atgtcagcag    480
aacccccaaga gaggtaatag gggtgggaaa cctctgacaa ccaggcctcc gaattagaaa    540
agagttttgt gttctgggga ctagtccgtc caccaagcgc tcagtggcgg cagtttcccg    600
```

6917

```
tctttctgcc tgtggctgtg tcttactgac catggctctg tgtctagtgg gtccaagcct   660
ctcccgggtg gccagtcttt ctgtaggttg cggcacaacg ccaggcaaaa gaagaggaag   720
gaatttaatc ctaatcggtg gaggtcgatt tgagggtaag accatctggg gaccctagga   780
gggacggggg tggcggcggg ggtggggaga aggcagagaa ggtaataatc taggtacatg   840
tctgagtccg aatgtgtttc ttgcactccc cggactgtgg cgaaatggcg tgctttgtgt   900
gtctgtggtt gggggggaagt ggggggaaatg acagcaggga aacctatcgg atagtttgtt   960
cgtaatcctc ctctctcaac agcacttact ctccatgttt tcgatctgtc atcctgcagg  1020
tctgctgtag caggtggctc cgcttgaagc gagggaggaa gtttcctccg atcagtagag  1080
gtcggtgtgg gcgtgggggc tgcctggaat gggggagggg ttagaaatcg ccggcacttt  1140
ggacaggctc ttccaatcct gctttatttt ccttacctcc ctcccatttc aggctaggga  1200
ggggcagac ctgtgcatgt ctgggatagc ataaagaggt taaaaacaaa cctgataacc  1260
ggaatggtga atcaggaaag caacgaatca acagtcaacc catcaagtgc tccattctca  1320
ctggctctgg tctctctgca gattggaaag attgttggga gtggcacacc actagggaaa  1380
agaagaaggg gcgaactgct tgtcttgagg aggttagtgc aagggttcta gtcaggtccc  1440
tagggacatc tgaggttgtg gtgactgaga ccccagcaga gtctgtggat tccattgaca  1500
ttatctaggc tttgggcggg gtgacctggg atggggaggg aaaggctgaa atgagaggca  1560
tagagatttc gtcaacaatc tacatttcct acctagcatt caattattat tatcttgtcc  1620
ctctgtgcag ctccctgcat ggggcaacac aagcagaaga gaaactcaaa cccaattttc  1680
ttcttccact cctaggtcaa cccccagaat cagctcttgt ggccttgaag tggctgaaga  1740
cgatcaccct ccacaggctt gagcccagtc ccacagcctt cctcccccag cctgagtgac  1800
tactctattc cttggtccct gctattgtcg gggacgattg catgggctac gccaggaaag  1860
taggctgggt gaccgcaggc ctggtgattg gggctggcgc ctgctattgc atttatagac  1920
tgactagggg aagaaaacag aacaaggaaa aaatggctga gggtggatct ggggatgtgg  1980
atgatgctgg ggactgttct ggggccaggt ataatgactg gtctgatgat gatgatgaca  2040
gcaatgagag caagagtata gtatggtacc caccttgggc tcggattggg actgaagctg  2100
gaaccagagc tagggccagg gcaagggcca gggctacccg ggcacgtcgg gctgtccaga  2160
aacgggcttc ccccaattca gatgataccg ttttgtcccc tcaagagcta caaaaggttc  2220
tttgcttggt tgagatgtct gaaaagcctt atattcttga agcagcttta attgctctgg  2280
gtaacaatgc tgcttatgca tttaacagag atattattcg tgatctgggt ggtctcccaa  2340
ttgtcgcaaa gattctcaat actcgggatc ccatagttaa ggaaaaggct ttaattgtcc  2400
tgaataactt gagtgtgaat gctgaaaatc agcgcaggct taaagtatac atgaatcaag  2460
tgtgtgatga cacaatcact tctcgcttga actcatctgt gcagcttgct ggactgagat  2520
tgcttacaaa tatgactgtt actaatgagt atcagcacat gcttgctaat tccatttctg  2580
actttttcg tttattttca gcgggaaatg aagaaaccaa acttcaggtt ctgaaactcc  2640
ttttgaattt ggctgaaaat ccagccatga ctagggaact gctcagggcc caagtaccat  2700
cttcactggg ctccctcttt aataagaagg agaacaaaga agttattctt aaacttctgg  2760
tcatatttga gaacataaat gataatttca aatgggaaga aaatgaacct actcagaatc  2820
aattcggtga aggttcactt ttttctttt taaaagaatt tcaagtgtgt gctgataagg  2880
ttctgggaat agaaagtcac catgattttt tggtgaaagt aaaagttgga aaattcatgg  2940
ccaaacttgc tgaacatatg ttcccaaaga gccaggaata acaccttgat tttgtaattt  3000
agaagcaaca cacattgtaa actattcatt ttctccacct tgtttatatg gtaaaggaat  3060
cctttcagct gccagttttg aataatgaat atcatattgt atcatcaatg ctgatattta  3120
actgagttgg tctttaggtt taagatggat aaatgaatat cactacttgt tctgaaaaca  3180
tgtttgttgc tttttatctc gctgcctaga ttgaaatatt ttgctatttc ttctgcataa  3240
gtgacagtga accaattcat catgagtaag ctcccttctg tcattttcat tgatttaatt  3300
tgtgtatcat caataaaatt gtatgttaat gctggaaaga aaaaagaag aaagaaagaa  3360
accatccctg tccttcagtt tataatctag ttggagagat aagaaacgta caaaccaaaa  3420
gataacagaa tatctgaagc atgtactcat tgtcagatgt tccctctgag agcacagagg  3480
aggcaaaagc ttctgtggga tgtgctagtc ggctaaagct tcacagagga ggtggcaatt  3540
gaaaatgagt cctgaatggg gtagggtggt tagggaattc catgagacaa gacaaggggg  3600
gcatggtgtg agaaaggcat ggaagtagga accctcttcc tatgacagga gatcattctg  3660
cttagagtgg agagtgtgga gagtgggagt agataatttt ggaaagctgg gtgaagccag  3720
ttgtggagaa ttgtttgaat attatcccat tgaataccca gagccactaa atcttttttt  3780
actagaaaat aattggggtc catatgaaag tctctattac tgagtagtgt caatgagggt  3840
gtggcaaaat ggagcctttc acatcctagt ggtggccatt tggtaataca gatataagcc  3900
ttaaactatg taaaccccttg tcctaaggaa gtaattgaat aattgcccaa agattgtatg  3960
tatgaggctg ttcatcccag cactgtctaa gctagtaaaa attggaaaca atttaagtat  4020
ctagcacatt ggattggtta taaagcaagg aatgttcaca cagtaggata ttataagtat  4080
gctgatggaa atctatattg ccaggaaaag ctattcatta tgcgttgtga agtcagaaag  4140
taaaaaaggg tagatagaag tattcgaagt atagttccat ttttttgagac taataaaaca  4200
tatgtttaaa aggacactaa aaactggagt tatagatatc cagatagaaa cagtagttat  4260
```

6918

```
ctttgggtag aagaataatg agtgatcttt acttttttac tttttattca tctttgtgtt 4320
tttatttatc taaaatgggt attgattttt aggacggttt tgaaaaagaa aagtgttggg 4380
aatgaagcaa gtgattgatt ggaaaacata ctgaatggaa gaaatattta gattaaaaat 4440
gaggtaggtt gaagtttctt ctctgaaatg atagataaat ggtgaagata aggcttattg 4500
tgaggattca gtgaggtaat atatgcaaag tacttacaat gttctggcac atagtaatta 4560
attaagaaaa tcgagcaccc ttaattacct agaatgcagg gttgttagtt ttttggttga 4620
cttttgtttt gctggggcat tctgccatgt tttagtgtca tttaataaat aatagtaaca 4680
ataaaggtta acatttatta agtgactact gtgtaaagtt ctatcattcc tgcaaggcaa 4740
ctgttaaaat aatttctcac aggagtagag ttttctttct ttcctaaaaa tccaaagtgt 4800
ttcctcagac atgatcacac cagcctccac aatatatttc tagttgtttg ggggatgtta 4860
tcctgcttta tatatgaggc caggaaaggg taaaatcctc tattcactta cctggtttta 4920
tacccaggtt tccctgtatg tactgtaatg gggtgatgga aaagtgaact aacatttttt 4980
cttgttccta ttgttaggtg agagagagag atttgtgggg agatggagtg gggaggatta 5040
attcctttaa aataaattca gtttgatgta cctgcgtgac actcagatgg ggatatccta 5100
ttgtcatttg aatgattgat ctggtgctca gaggagatga acaggctgca aataaggatt 5160
tgagagccat tggaggatgg atgataatgg agcacatgga agcagatgtg gcccttcaga 5220
gagaaggtgc agagtcagag tgaagggttg caaaagaaat gtaagggact atgggcagct 5280
ggggagagaa gcacagaatt gaaacaatgt atacccttcc agacactttt actattcata 5340
tacttatata ttctttacat aaaattggat catactattg aaaaattttc agtgcctgat 5400
ttaaaacttt tttcctcaaa aaaagaataa tattcattgg agatataata cttgaaaaaa 5460
tagagttgat gagtacaaac ttgtgccttg acccagatat gtagcttgaa catctaacaa 5520
aaatccagat caagccatgt tgaacttgag atgcggagcg actttacac ctggggtgaa 5580
aatgaggcta actcgagtag taaaaatccc cagtgaggca ggtataggcc tgactagcac 5640
ccatctgctc ctttccccat tcctttgttc cttctcattc ttctttccac ttccttcctc 5700
ctacttttct ttattttatc cttctgggag atcattggtg gtagcctctc tgggcttctc 5760
tgatccttca attcccatga cgccatgcca tgtatcagtg ggcatttaat acagaataat 5820
aactgtcatt gctctggtca taagttgacc ctgggtgtga ctggatgcca agaattttttg 5880
gaacctttgt tggacaaaaa gagactgaga aggaactagt cttaacttgt cacggccaca 5940
tgtgcactgc atgaattttt gatgtcctgt acccggtctt atttagactg aataacccgg 6000
agtctgggaa aggtgtatga gatagatgtg tgactgcttg gtccaggcag ccaggtcaca 6060
ggttgatgtc ccaatgtttt cacataggag gttgtcactc tcaatccttt tggaaggggc 6120
agagttctag gattgtagct gattatggca gcccattggc acatggagga ggcagtgtct 6180
tctctttaga gaggatggca gcttctggga aaccaaggaa accagaaact cagaggatgt 6240
cctgctattt tggttttgtt ctcatctaac agttttagga atataagtgg atctatccca 6300
gtgcaaacat gttcaaaggc gatttttacaa aagtggagtg ttgttctgtt gtaaattgtc 6360
agccaatata cataatattt caaggctcag gaaatggatt ttcttttttg aaaaattcac 6420
attttacctg tcttttttca aaagagattc caagtgtagg cttagcaaat tgatgtggtt 6480
caggcaaatt ttatgtttat ggctctcttt cattaatttc tttgctaagt tcccttgaga 6540
atggcctttt agataatgat tcatactatt ttcaatgcta gcttttaca tttattttgc 6600
atcgcatccc aggctgaaga ttttttttccg gttttctgt ttaaaccatg gctctttctt 6660
gcttttaagc cagagccgtg tcaccatcat cctggggtcc cttatctgcc ctgccccgag 6720
ggtatggtat tagcaggata agtaatattt acttatctga gtggcatagc tcagtgcttg 6780
accctctcca ctggggccct ctcaggtatt gtgctaaggg cttgggcaat gtatgcttta 6840
ggggatagat gggagaggag ggagaggga gaagggagtg aaggaagcct tatcagagag 6900
gtaactttat tctgacaggg tgccctcaaa gtaggagaac ttggtggatc catctccact 6960
gtgaggataa agttattgct gaaatccaat tcttgtattc aagagatgca gcacatttct 7020
ccctggacac aattataaat tttgtctgcc cagatgctcc tttagcagag gtagagcatc 7080
ggtgggtggt agttttatga ctattaacat atatgatcaa attggctatc aaaaagagtt 7140
taagagaaat atactttttt ttagcagtgt gattaatttt ttaaattata tttttaaaaa 7200
aatgacaaat aataaaaagt atgtatttat ggagtacagt atcatgttat gatacatgaa 7260
tacattgtgg aatgattaaa acaggcctat taacatacaa cacctaacat actaatcttt 7320
tgtggtggga acacttaaaa tctactttt aagcaatttt ggaatataca atatgttatt 7380
attaagtata gtccccatgc aatgaaatag gctactagaa cttaatccat ttgtctaact 7440
gaaactttgt gccctttaag aaacatctct cctttccttg tgcctcccct taccccatc 7500
ccgtggtaac taccattcta ctctacttct atgaattcga cttttaaga ttccacatat 7560
aagtgagatc atgcattatt tgtctttttg tgcctgactt atttcaccta gtacaatgtt 7620
ttctagatta acatgttatt gcaaatgttg caactgacaa attttccttc ttttttttttt 7680
taagagacat aagacataag agtctcatta cgttgcccat gctggtatcg aactcctggg 7740
ctcaagagat cctcccaccc cagcctctga attagctagg actacaggcc agtgccagta 7800
cacccggctg gctagaattt tcttctttt aaaggctgca ttgtttccat tgtatttcca 7860
tttgcatgtg ccacattttc tttatccatc caatgatgga cacttaggtt gattccacat 7920
```

6919

```
cttggctatt gtgaataatg ctgcaatgaa catgggagtg aagatatctc tttgatacac      7980
tgatttcaat tcctttgaat atatatgcag aagtgggatt gctggataat atggtaatta      8040
aaattttagt tttttgaggg gc                                               8062


<210> 9351
<211> 398
<212> DNA
<213> Homo sapiens

<400> 9351
cttttccaaa atggctgtac taatttacat tcccaccaac aatgttcaag gatttcatat        60
tcttgacatt cttaccaaaa ttgtcacagt ttgtaaaagg tagtctaata agtggcctaa       120
gtgaatgtga caacacttca ttgaaagcaa tcttaggttt ttccaactat agtcaataat       180
aacttaattg tacattctaa ataactcaa agagtgtaat tggattgctt gtaacttaaa        240
ggataaatgc ttgaggggat ggatgcctca ttctccatga tgtgcttatt tcacattgca       300
tgcctgtatc aaaacattac atttatccca taatatacac acttactatg taccccccaa       360
aaataaacat taaaattaag ttttcaaaaa aaaaaaaa                               398


<210> 9352
<211> 1228
<212> DNA
<213> Homo sapiens

<400> 9352
ggctcaatgt ctggattccg cccggcctta aaaggagccc ttgtgaaacc tgggaagcct        60
cgtggccccg cggcgttggc tcagctgcag ccctggtcct aaaccttgga gcgcagactt       120
gaggcacccc ctcctgcctg ttggtgctga gggggttggg tgctgtgtca cttgatgacg       180
tggctgacta ccacccaggg cagcggccga gcccatagtg gcgtcagtgc cgccggcgtc       240
cttggggtcc agcggtcaag gctcagcccg ctgaggggac ccccccggag ttggttccag       300
cactggtcca ggactggaga gtttctcaag gaccttgagg accccagaag cccttgcagc       360
aggaaaggct gtaaggggggg gtcagcctag ggcaggacct agggaggga actttcttga       420
tacatatttg ccttttcatc ccatctagca agcacagtgt taattttaga aattatagaa       480
gaaaaaatca gcaaggagtg tgggaaaact gcatgcccca ggcctccccc gccccagggt       540
gaattggaag ccctggaatg ggccgaggca caccaggcag ctgatctggg tgcatgtggg       600
ccacagacca ctctcacaag gttaaatctt taacaagagc ctcatgtttg ttaggagaag       660
gtgggacccc agcccaagca cttccccatt gcagcctggc atgaaatctt tgccttttag       720
tggggatcac tcctgcccga gtcctggctg tggtggggac tctgcaagtt gctaacccag       780
cgtccattct ctttcctccg tactaacaga accccggtgc ctctgcccag ttccaatagc       840
gggcagacga gagccatgtc ctgggctccc ttgcagcccg gggtgtgcag ctgtggcgtg      ·900
gaggtgggtg gtgctgggag agacttgcag ggaagctcct gtgaagggga ctcagctgcc       960
acatgcagga ccccttcccct ttgccttctt cctgcctgga acatggatgt gatggctggt      1020
gctgggacag ctgtcctgag agcgtgagga aagggtcaca ccctaaggac agtggagcag      1080
aacacaggaa ggaccctggg cctttgctga cgcagaacgc gggaaggacc ctgggccttt      1140
gctgacatac cagccccaga ctacttaaat tcagcttttt ttttaatgtg agaaaataaa      1200
tgcacccctc tctggtttaa gccactga                                        1228


<210> 9353
<211> 4866
<212> DNA
<213> Homo sapiens

<400> 9353
gcaggaccca gtgctgaaca cacacagggt aaatggtggt gtgtgaaaga ccgagaaaga        60
agctgttaat tctgggcttc caatggtcag aaatgcagag atgaagggaa tttgagctga       120
gtcttgaagg gtttagtaaa agggtcactg tcaaggtgaa gaaaagccag tattgagggt       180
gctgtatttg ggtgagccat gcagagttag aggtgggctg aggcagagtg gcctccagga       240
gaaggtgaga ggcgtgccca ggtgccaggc ttgatcggca ggctgtgctc aggcccattt       300
ttctgattca tttttctttt tccgcccacc ctactgctgc tgctttgcaa acaacacata       360
```

```
aatctcctta ggttagctgg gatccCCtga aggcagtgcc cactgcggca tagagaatga    420
agcggtgggc cttagagcat gggaatgcgt tcCCcgggtg gctgcaggtc acggctctgc    480
agcatagttc agagctggtg tgcgctgggt ggagtcttgt cctttcagtc gccgtcatcc    540
tttcttgcag aattacCCCc tctacattcg cagcacCCct acggagaacg agctgaagtt    600
ccactacatg gtgcacacat ctctggacgt ggtggatgag aagatctccg caatggggaa    660
ggccctggtc gaccagaggg agctgtacct gggcctgctc taccccacgg aggactacaa    720
ggtgtatctt tcagggcagg gtgtgtgtca gggaggacct acagttgcaa gatgtacttt    780
aggatcagat aacttgaaac cttttagaag aaaaagaggt gagagttttt agccagccag    840
ggaattaggg tagcttgagg tgaatgaagg cctgtaactc ttctctttca ttggaagagc    900
catttgggaa aagcaaggct agaattcCCc gtagaatgtt ttggtttgca cgtgtccgtt    960
gtctggtttg cagaggaagt gggacacttc tgctttgtac ctgcaaggat ttctttctgt   1020
gcttttcagg gggagccacc acctttgagc aggggataat agtttcATTt atttcattag   1080
gccttgcctc ttatgtcact agacactcgt ctagtcCCtt gggacaaatc acttgaggcc   1140
atggaattca aagaccttcc caaaagtcat catgtagcct gtccatggtg acatttgcta   1200
gtagccacta ttttacaaaa taatgtggcc tctagagagg ggatccgcct tgttcacgaa   1260
gcctctggtt ttgcagttaa ctttccgggc caggcattga ttcatgaaga gggtgaggtg   1320
ttccagacag acagactcgg agtctaggtg gttcggctcc tggagtgtga actgggtaag   1380·
gcttggctgc ctgctcttcg cttctcctgc aaacaccaga cgtcgcCCta gcaaagtatt   1440
taggcttgta cccagcacgg ccactgcagg accagcCCag catgggcatt tcctgtgatt   1500
caaggttgcc acatttctcc aaagtgagcc cacagagggc cctccaccgg cagtcCCtgt   1560
gttacgagtg ccttccctaa ccagctgtgc agatacggct acgtcaccaa ctccaaggtg   1620
aagtttgtca tggtggtaga ttcctccaac acagcCCttc gagacaacga aattcgcagc   1680
gtaagtcagg gagttagagg gccacgcCCg agtgggtgtt ttgttttttcc tttttgactt   1740
tgttttgaaa tgctgagaaa ctaaaaatct ggcagtggct gtgtgtatgt ggcaaggtca   1800
tggtttgctg ggtctttttc agatgttccg gaagctacac aactcctaca cagacgtgat   1860
gtgcaacCCc ttctacaacc cggggaccg catccagtcc aggtgggccc tactttctgt   1920
gtcttgccac cttctttctg taggacatgc cttgccattt tggttgccaa aatgcaacca   1980
tttggaaaat aagggaggaa agatcttttt aagctatgag caccatcCCc ctagggcaga   2040
ggttttaaag ccacaaagcc ccgtttctcc acaccaactc ttacacagat ctccagcgca   2100
taaagtggat agagtgtgtg tggtgtgggg agtagagctt gcccatttgg cttcccaggt   2160
gtgcccagtg ggtacctggg gcacctgcag gactcagggc' caagcacatg ggcagtggct   2220
ttcagggatc acacgtcctt ttgtagctac ctgatctttt atgttgaatt tggaacagtc   2280
aggaacctgg tttgcaggtg tcttccgaat agtccacaaa gtaaacagat ttaacttttg   2340
aacatcatga gggaaatgtg gggtccatgc ccacattcca gacttgcttt cagtgagtcc   2400
ccagttccaa gacataattc cctgtggttg gcagggaaga ggacgctgca gtgatccaag   2460
gcaggcccct ccctccacca ggacactgtc ttggggccat cctggtccca gatgggagca   2520
ggcaggcgaa tgtccacagt cttgcctcct gggctgcaca gggccatcct tgccacacca   2580
ccgctctgcc tgcccatgct gctccctcct ccacccCttc ctggggcctt gggaggctgc   2640
acagggaact tggaggcagc agatgggttc tcagtgccCg gtggggtggg actcctgtcc   2700
tggcctctca gcggagttca catttctgga cCCtggagaa ggtcCCgagc atcctgtgga   2760
tggagccatg ctgcccggcc cgtctctgag cagagggtg·gagggcctgg ctctcctctg   2820
agtgggtctg tttctcttag cagggccttt gataacatgg tgacgtcgat gatgatacag   2880
gtgtgctgag tgagctgtgc tgccagccat cgcagaggag cccgcgcacg actgtggtgg   2940
ggccgtcggt ctgttctggt tgcctcttcc tgaatgggac gcctggggct ttcagggcag   3000
gcagctgtgc atgttctctc aactaaaggt cttgtgagag gagatttggc ttttttccttc   3060
cgtgtcagcc aaggatttaa ttaagaagaa ttcaactaag gactttctg gggtgtgggc   3120
agaggtttgg gatcagatgg cgcaggtagc ctgtcctcag ttgtccaaag gggcagaggc   3180
aggggtgcct ggagccaaga gttcctgagc ctgcaggacc tgtgaccatg tgggtcaccc   3240
actggctgaa caggtgggct ggtctggagg gggtggcctc ctgagcCCag aaccagccta   3300
ggatctaggg gcacaagggg agccggcgtg gcttcccaca ggggagggcc ctcctctttc   3360
tggacttggc ctccattctt tgcatctggc tcaatgtctg gattccgccc ggccttaaaa   3420
ggagcccttg tgaaacctgg gaagcctcgt ggccccgcgg cgttggctca gctgcagccc   3480
tggtcctaaa ccttggagcg cagacttgag gcacccCCtc ctgcctgttg gtgctgaggg   3540
ggttgggtgc tgtgtcactt gatgacgtgg ctgactacca cccagggcag cgccgagccc   3600
atagtgcgtc agtccgccgg cgtccttggg gtccagcggt caaggctcag ccCgctgagg   3660
ggacccCCCc ggagttggtt ccagcactgg tccaggactg gagagtttct caaggacctt   3720
gaggaccCCa gaagcccttg cagcaggaaa ggctgtaagg ggggtcagc ctagggcagg   3780
acctagggag gggaactttc ttgatacata tttgccttttt catccatct agcaagcaca   3840
gtgttaattt tagaaattat agaagaaaaa atcagcaagg agtgtgggaa aactgcatgc   3900
cccaggcctc ccccgcccca gggtgaattg gaagccctgg aatgggccga ggcacaccag   3960
gcagctgatc tgggtgcatg tgggccacag accactctca caaggttaaa tctttaacaa   4020
```

6921

```
gagcctcatg tttgttagga gaaggtggga ccccagccca agcacttccc cattgcagcc    4080
tggcatgaaa tctttgcctt ttagtgggga tcactcctgc ccgagtcctg gctgtggtgg    4140
ggactctgca agttgctaac ccagcgtcca ttctctttcc tccgtactaa cagaaccccg    4200
gtgcctctgc ccagttccaa tagcgggcag acgagagcca tgtcctgggc tcccttgcag    4260
cccgggggtgt gcagctgtgg cgtggaggtg ggtggtgctg ggagagactt gcagggaagc    4320
tcctgtgaag gggactcagc tgccacatgc aggacccttc ccctttgcct tcttcctgcc    4380
tggaacatgg atgtgatggc tggtgctggg acagctgtcc tgagagcgtg aggaaagggt    4440
cacaccctaa ggacagtgga gcagaacaca ggaaggaccc tgggccttcg tgacgcagaa    4500
cgcgggaagg accctgggcc tttgctgaca taccagcccc agactactta aattcagctt    4560
ttttttttaat gtgagaaaat aaatgcaccc ctctctggtt taagccactg atttttgggt    4620
tttctgttag gtgcagccag acccacctgt aagtactttt tacatgaggg cgttttcaca    4680
agccttgtta ggcagcatcc ccattttaag cccaaggaaa cagtgcctga tgaggcgctg    4740
ttagtcgtgg aatgctggag tcaggtgtgt gcacataagc agccttgggc ttctgcggcc    4800
gtgcatgcag ccagggagcc cgactggctg tgctttcaga ggggacagtc gtcaaagtgc    4860
ccagga                                                                4866
```

<210> 9354
<211> 5813
<212> DNA
<213> Homo sapiens

<400> 9354

```
gcctggcgcc gagcctccca agatggcggt gtgcatcgcg gtgattgcca aggaggtgcg    60
tacgcgcggc gtggggcgtc cgggctcgca ccatcctcgg ctctccgctt tctttctact    120
tcttccctgg gcttagaagg caccttagga aatgggacct ggaggaggcc ttcgccgagc    180
tccagcggtc aggggcttcg cggtggacga gccgccaggc agaccctgac tgagacccca    240
gttccgcgct cgcccgtccc gctgctgaac gcacccctcg gcgcagcagg tctcctcccc    300
gccaggaccc accagaaacc taggtggtcc cgggcactac ctccgtcctc cgtcctcagc    360
aggttctgcc cgttctcccg tccagcgctg gttccccgcg gacggcggcc ccggccctcc    420
tgccagtctc cccggagccg agttaaaaac aaatcggatc ctgtcacgcc tctgcctgag    480
acctctgcag tggcttctcg ttgccttagg atgctgtctg aataacctgc tctgggatcc    540
tttcccccca taacccttgg cactctccgc tccaaccaaa caattctgca gctccctgga    600
catgctctgc cctctcacct gtgggccttt gcacgcggaa cacctctccc cagctcccat    660
cctctttact ggcccacata catttcaact ggaaagcatt ttctgaaggc taagactgag    720
ctgggtggct gcccacacgc tcctgctgca cggagccttc atttcctagc cagggtctcc    780
cgagaccaga ctcgagaccg ctccctgctg ggcggtggct gctgctaagc tgctcatggg    840
cttccctctt ggccaagatg atcatttgct tgtttgtggg tttattgact aggtatcact    900
ccccacgagg gtagcgagga ctcttgttca ctgtatttgt gcaggaccca gtgctgaaca    960
cacacagggt aaatggtggt gtgtgaaaga ccgagaaaga agctgttaat tctgggcttc    1020
caatggtcag aaatgcagag atgaagggaa tttgagctga gtcttgaagg gtttagtaaa    1080
agggtcactg tcaaggtgaa gaaaagccag tattgagggt gctgtatttg ggtgagccat    1140
gcagagttag aggtgggctg aggcagagtg gcctccagga gaaggtgaga ggcgtgccca    1200
ggtgccaggc ttgatcggca ggctgtgctc aggcccattt ttctgattca ttttttcttt    1260
tccgcccacc ctactgctgc tgctttgcaa acaacacata aatctcctta ggttagctgg    1320
gatcccctga aggcagtgcc cactgcggca tagagaatga agcggtgggc cttagagcat    1380
gggaatgcgt tccccgggtg gctgcaggtc acggctctgc agcatagttc agagctggtg    1440
tgcgctgggt ggagtcttgt cctttcagtc gccgtcatcc tttcttgcag aattacccc    1500
tctacattcg cagcacccct acggagaacg agctgaagtt ccactacatg gtgcacacat    1560
ctctggacgt ggtggatgag aagatctccg caatggggaa ggccctggtc gaccagaggg    1620
agctgtacct gggcctgctc taccccacgg aggactacaa ggtgtatctt tcagggcagg    1680
gtgtgtgtca gggaggacct acagttgcaa gatgtacttt aggatcagat aacttgaaac    1740
cttttagaag aaaaagaggt gagagttttt agccagccag ggaattaggg tagcttgagg    1800
tgaatgaagg cctgtaactc ttctctttca ttggaagagc catttgggaa aagcagggct    1860
agaattcccc gtagaatgtt ttggtttgca cgtgtccgtt gtctggtttg cagaggaagt    1920
gggacacttc tgctttgtac ctgcaaggat ttctttctgt gcttttcagg gggagccacc    1980
acctttgagc aggggataat agttacattt atttcattag gccttgcctc ttatgtcact    2040
agacactcgt ctagtccctt gggacaaatc acttgaggcc atggaattca aagaccttcc    2100
caaaagtcat catgtagcct gtccatggtg acatttgcta gtagccacta ttttacaaaa    2160
taatgtggcc tctagagagg ggatccgcct tgttcacgaa gcctctggtt ttgcagttaa    2220
ctttccgggc caggcattga ttcatgaaga gggtgaggtg ttccagacag acagactcgg    2280
```

6922

```
agtctaggtg gttcggctcc tggagtgtga actgggtaag gcttggctgc ctgctcttcg   2340
cttctcctgc aaacaccaga cgtcgcccta gcaaagtatt taggcttgta cccagcacgg   2400
ccactgcagg accagcccag catgggcatt tcctgtgatt caaggttgcc acatttctcc   2460
aaagtgaggg cccacagagg gccctccacc ggcagtccct gtgttacgag tgccttccct   2520
aaccagctgt gcagatacgg ctacgtcacc aactccaagg tgaagtttgt catggtggta   2580
gattcctcca acacagccct tcgagacaac gaaattcgca gcgtaagtca gggagttaga   2640
gggccacgcc cgagtgggtg ttttgttttt ccttttgac tttgttttga aatgctgaga    2700
aactaaaaat ctggcagtgg ctgtgtgtat gtggcaaggt catggtttgc tgggtctttt   2760
tcagatgttc cggaagctac acaactccta cacagacgtg atgtgcaacc ccttctacaa   2820
cccgggggac cgcatccagt ccaggtgggc cctactttct gtgtcttgcc accttctttc   2880
tgtaggacat gccttgccat tttggttgcc aaaatgcaac catttggaaa ataagggagg   2940
aaagatcttt ttaagctatg agcaccatcc ccctagggca gaggtttaa agccacaaag    3000
ccccgtttct ccacaccaac tcttacacag atctccagcg cataaagtgg atagagtgtg   3060
tgtggtgtgg ggagtagagc ttgcccattt ggcttcccag gtgtgcccag tgggtacctg   3120
gggcacctgc aggactcagg gccaagcaca tgggcagtgg cttcaggga tcacacgtcc    3180
ttttgtagct acctgatctt ttatgttgaa tttggaacag tcaggaacct ggtttgcagg   3240
tgtcttccga atagtccaca aagtaaacag atttaacttt tgaacatcat gagggaaatg   3300
tggggtccat gcccacattc cagacttgct ttcagtgagt ccccagttcc aagacataat   3360
tccctgtggt tggcagggaa aaggacgctg caatgatcca aggcaggccc ctccctccac   3420
caggacactg tcttggggcc atcctggtcc cagatgggag caggcaggcg aatgtccaca   3480
gtcttgcttc ctgggctgca cagggccatc cttggcacac ccccgctctg cctgcccatg   3540
ttgctccctc ctccacccct tcctggggcc ttgggaggct gcacagggaa cttggaggca   3600
gcagatgggt tctcagtgcc cggtgggggtg ggactcctgt cctggcctct cagcggagtt   3660
cacatttctg gaccctggag aaggtcccga gcatcctgtg gatggagcca tgctgcccgg   3720
cccgtctctg agcagagggg tggagggcct ggctctcctc tgagtgggtc tgtttctctt   3780
agcagggcct ttgataacat ggtgacgtcg atgatgatac aggtgtgctg agtgagctgt   3840
gctgccagcc atcgcagagg agcccgcgca cgactgtggt ggggccgtcg gtctgttctg   3900
gttgcctctt cctgaatggg acgcctgggg cttttcaggg c aggcagctgt gcatgttctc   3960
tcaactaaag gtcttgtgag aggagatttg gcttttttcct tccgtgtcag ccaaggattt   4020
aattaagaag aattcaacta aggactttc tggggtgtgg gcagaggttt gggatcagat    4080
ggcgcaggta gcctgtcctc agttgtccca aaggggcaga ggcagggggtg cctggagcca   4140
agagttcctg agcctgcagg acctgtgacc atgtgggtca cccactggct gaacaggtgg   4200
gctggtctgg agggggtggc ctcctgagcc cagaaccagc ctaggatcta ggggcacaag   4260
gggagccggc gtggcttccc acaggggagg gccctcctct ttctggactt ggcctccatt   4320
ctttgcatct ggctcaatgt ctggattccg cccggcctta aaaggagccc ttgtgaaacc   4380
tgggaagcct cgtggccccg cggcgttggc tcagctgcag ccctggtcct aaaccttgga   4440
gcgcagactt gaggcacccc ctcctgcctg ttggtgctga gggggttggg tgctgtgtca   4500
cttgatgacg tggctgacta ccacccaggg cagcggccga gcccatagtg gcgtcagtgc   4560
cgccggcgtc cttggggtcc agcggtcaag gctcagcccg ctgaggggac cccccggag    4620
ttggttccag cactggtcca ggactggaga gtttctcaag gaccttgagg accccagaag   4680
cccttgcagc aggaaaggct gtaagggggg gtcagcctag ggcaggacct agggagggga   4740
actttcttga tacatatttg ccttttcatc ccatctagca agcacagtgt taattttaga   4800
aattatagaa gaaaaaatca gcaaggagtg tgggaaaact gcatgcccca ggcctccccc   4860
gccccagggt gaattggaag ccctggaatg ggccgaggca caccaggcag ctgatctggg   4920
tgcctgtggg ccacagaccc actttacaag ggttaaattt taacaagagc cctatgtttg   4980
ttaggagaag gtgggacccc agcccaagca cttccccatt gcagcctggc atgaaatctt   5040
tgcctttttag tggggatcac tcctgcccga gtcctggctg tggtggggac tctgcaagtt   5100
gctaacccag cgtccattct ctttcctccg tactaacaga accccggtgc ctctgcccag   5160
ttccaatagc gggcagacga aagccatgtc ctgggctccc ttgcagcccg gggtgggcag   5220
ctgtggcgtg gaggtgggtg gtgctgggag agacttgcag ggaagctcct gtgaagggga   5280
ctcagctgcc acatgcagga cccttcccct ttgccttctt cctgcctgga acatggatgt   5340
gatggctggt gctgggacag ctgtcctgag agcgtgagga aagggtcaca ccctaaggac   5400
agtggagcag aacacaggaa ggaccctggg cctttgctga cgcagaacgc gggaaggacc   5460
ctgggccttt gctgacatac cagccccaga ctacttaaat tcagcttttt ttttaatgtg   5520
agaaaataaa tgcacccctc tctggtttaa gccactgatt tttgggtttt ctgttaggtg   5580
cagccagacc cacctgtaag tactttttac atgagggcgt tttcacaagc cttgttaggc   5640
agcatcccca ttttaagccc aaggaaacag tgcctgatga ggcgctgtta gtcgtggaat   5700
gctggagtca ggtgtgtgca cataagcagc cttgggcttc tgcggccgtg catgcagcca   5760
gggagcccga ctggctgtgc tttcagaggg gacagtcgtc aaagtgccca gga          5813
```

6923

<210> 9355
<211> 542
<212> DNA
<213> Homo sapiens

<400> 9355
```
ctgactgaga ccccagttcc gcgctcgccc gtcccgctgc tgaacgcacc cctcggcgca    60
cgaggtctcc tccccgccag acccaccaga aacctaggtg gtcccgggca ctacctccgt   120
cctccgtcct cagcaggttc tgcccgttct cccgtccagc gctggttccc cgcggacggc   180
gccccggcct cctgccagtc tccccggagc cgagttaaaa acaaatcgga tcctgtcacg   240
cctctgcctg agacctctgc agtggcttct cgttgcctta ggatgctgtc tgaataacct   300
gctctgggat cctttccccc cataaccctt ggcactctcc gctccaacca aacaattctg   360
cagctccctg gacatgctct gccctctcac ctgtgggcct ttgcacgcgg aacacctctc   420
cccagctccc atcctcttta ctggcccaca tacatttcaa ctggaaagca ttttctgaag   480
gctaagactg agctgggtgg ctgcccacac gctcctgctg cacggagcct tcatttccta   540
gc                                                                  542
```

<210> 9356
<211> 9777
<212> DNA
<213> Homo sapiens

<400> 9356
```
attctgatgc tcacagtacc acctcaagtg cctccccagc tcaatctcct tgttacagta    60
accagtcaga tgacggctca gatacagaga tggcttctgg ttctaacaga acaccagttt   120
tttccttttt agatctcact tactggaaaa ggtaaaagaa acaaagtatc tctctaacca   180
gcaaaccatc ttaattatgg gcagtatttt tctacttcct tagcaattaa atggcatttg   240
gcaaacagtt ggtaacacac gattgcagtg gattaagcag gaattgagca gggaagtggg   300
attttgtat gttcttccta ttaaaattta tttaaaataa aaatcacatc aaggtaccta   360
cattgcctat tgctagataa gtggagtaga aagacaatat gcagtggaga gaatcagtaa   420
aactaagagt tggtccttca aaaagacgtg accaaaaata tactagagat aaagtggatc   480
aggaaaagga gataatacac ataagcaatt ttaggaaaga gaaaagagac ttaggtatag   540
ataaagcaga catttaaaaa ataataggat attatagaca acttgatgcc aataaatttg   600
aacatacagg tgaagcaggt acagtactag aaaaaagaca tgttgctaaa gctgtctcaa   660
gaaaaagtga. aaaacggaga taatctcata ataaattgat tcaggccagg tgtgatggct   720
cacacctgta atcctagcat tttgagaggc caaggtgagg ggattgtttg agcctaggag   780
gttaggtttg cagtaagcta ttttgcacc attgcactcc agcctggtga taaagcaaga   840
ctctatttaa aaaaacaaac aaacaaacaa acaaaccaca ataggcaagt tgtactaaac   900
atccaggaac agatgattgg agcctatgca ctggcttttc cagactatgg ataaaatagg   960
gcataggccc caagcatttt taggctgat ataagtttga taccaaaaca aatatatcat  1020
cagccactag ggttattcta ggtatgtaag attggtttga acatgagacg atcaactaat  1080
ataatttacc acattgacag tttctttttt ttttttttt ttgagacgga gttttgctct  1140
tgttgccaag ctatagtgca atggctcgat ctctgctcac tgcagcctct gcctcccggg  1200
ttcagtgatt ctcctgcctt agcctcccga gtagctggga ttacaggtgc atggccacca  1260
cacctggcta aattttgta tttttagtag aaaaggggtt tcaccatgtt ggtcaggctg  1320
gtctcgaact cctgacctta ggtgatccac ctgcctcagc ctcccaagt gttgggatta  1380
taggcgtgag ccaccgtgcc cagcccacat tgatagtttc taaaggaagg tgttgtcttc  1440
ttagtggtgc aaagaaggag tttgacaaat ttgaacattc ctttaaggtt taaaaaaaaa  1500
aaagttttag caaaatagga atagaaggaa acttttttac ttagacaaca ggtatcttac  1560
aaaaaggaca aaagtacata atacataatt gtgataaaat gaaagcattt tctctatgat  1620
caggaacaaa tcaagagtgt tgactatcac catttctatt cagcattata cagaaggttc  1680
taaccaatac aatattggta gtagtgtagt agtaaacact ttagaacagt gcctagtgca  1740
tagtgtaagt actttaaagt actttaaacc actttgtttg catttatttta atcttttttt  1800
tttttttttt gagacagagt ttcactctgt agcccagact ggagtgcagt ggtgttatct  1860
tggctcactg caatgtccgc ctcctgggct caggcaattc tcccacctca gccgcccaaa  1920
tagctgggtc tacaggcacg caccaccatg cctggctaat ttttgtattt tagtagagat  1980
ggggtttcgc catattggcc aggctggtct tgaacttcta gcttcaagtg atctgcctgc  2040
cttgacctcc caaagtgctg ggattacagg tgtgagttac tgcacctggc cttatttagt  2100
ctttatgaca attctgtgaa gcattatgtg aaaacacagg tacaaagagg aagtactttg  2160
tttaaggtta catagtaagt agagcaggat ttaaatctag gcagtttggc attagaatga  2220
```

6924

```
tacattttat catagtgtta ggaaatataa aataatgtag taaaatatca aaagcccttt    2280
ggaggagtta tgtaaaaatc atacaatatt gtcgaataac atttatttat gtgtgtgtgt    2340
gtgtgtgtgt gtgtgtgtgt gtgtgtatgt atatatataa atatatgtct atgttgagag    2400
agagagactc actctgtcac ttaggctgga gtgcagtggt gtgatcttgg ctcactgcaa    2460
cctccgcctc ctgggttcaa gcgattttcc tgtctcagcc tccggagtag ctgggattac    2520
aggcatgcac caccacaccc tgctaatttt tgtattttta gtagagattg ggtttcacca    2580
tgctggccag gctgatagtg aactcctgac ctcaggtgat ctgctcgcct tggcctccca    2640
aagtgctggg attacaggca tgaaccactg cgcccggccg ttgaataaca tttaaagaca    2700
cctaaataaa ttgagaggta tagcacattc atagatatta ttaaactgac tgttagggag    2760
atgatcactt tgtagattca gggtaattgc agtcaaaatc ccaacatatt tatggaactt    2820
tacaagctaa tttataattt atatagaaaa gcaaagggcc caaaataggc atcttcagaa    2880
gaaaaagaaa gatgtggata aacttgccct aacagaaatc aagacatatt atgaagccat    2940
ggtaattaat gtgttttggg actaggaata gaaaaataaa ccaatggaat agtatagaga    3000
gcctggaaac aaggccacat atgtatatag cacttgttat gtgatacatg atgtgggggt    3060
gattggtggg cgaaaatggt ctgttcaata agtgttgcta ggatattaag aacaacatgg    3120
ttattcatgt ggaaaaattg ggcttgggtt ccctacctca caccatagac aaacaccaat    3180
tacagatgca ttaaagtaga aaatagatta tgactttga gtgggaaagg attttttttat    3240
gacagagtac ttaagcattt aaaaaaacct ccaggtttaa ttacattata attatgaact    3300
taaattcatc aaataatacc ataaagaaaa tgaaatgata tccagcacat atatctgaca    3360
aaggattagt atctggaata tacagacaac tcctacaatg gaagaaaaag ataaaccaac    3420
agaaaatgg acacacttag aaaggaatca tgaaataact cattaaatga taatgtgttc    3480
aaactttttg aaaatcaagg aaatacaaag taaaatttca atgagatacc attttatact    3540
cattagattg gtgaaaaaac taaaataaag tctattacca aatgttgggg agaaggtatg    3600
gaatgatgag aacactgtca gttataggtg taaatagtta taaccatgta gataaatggc    3660
cgttttgag taaagttgaa gacgttccca ttcctatatg ccagcaatat aaactagtaa    3720
aaacctttaa gatgtgtcca ctgatttata cattaaaata agagtagata aataaaactg    3780
tgttatatat tcacagggta gaatattata catgttaaaa tgaaataaag ctctataaca    3840
atatgtatgg atctcaacgt tgactaaaac attgcagaat acattgtgat tctgtgtgtg    3900
tgtgtgtgtg tgtgtgtgtg tgtgtgtgta atggataact gtgcagtatg attagagatg    3960
ccaacatacg gtgaaaccat gaagtataaa gaaaagggag tgataaacct aaaattaagt    4020
ggggagagga tgagatgagg taggatggga ctgtggaggg gcctgcaggg ggcttcatag    4080
gaaatgatct tttttccctt agagtatgtg gtctgtaggc attctcattg tgttgtcatt    4140
tttgatgcct ttgctaacac acaccctttt ttgtttttt ttgagacaga gttttgctct    4200
gtctcccagg ctagagtgca gtggtgtgat ttcggctcac tgcaacctcc acttcctggg    4260
ttcaagtgat tctactgcct cagtctccca agtagctggg actacaggca cgtgccacca    4320
cgcctggcta atttttgcat ttttagtaga gatggggttt cgccatgttg gccaggctga    4380
tctcgaactc ctgacctcaa gttatctgcc cacctcagcc tcccaaactg ctgggattac    4440
aggtgtaagc caccacaccc ggcccacaca tgtattttta tctactcagt atttaattaa    4500
aaattaccac tcaagcactt aggagttgat aaagaaaaaa aattaaatat atataaaaaa    4560
ttgctagctg catcagcctg tttatggtgg ctgattttt tttcaagagt tggtgatttt    4620
ggaggaaata gttaacaaca tcaggggcag ccttgaaac tgactgctgt cttttcaaaat    4680
gccgtcttcc tcaatatttg agaagattcc agtgtggcct ttaaggcaac tgggtaattc    4740
cccttctcta gctaattggg gttactctag gagcccttc acttggaatg tgcaagattg    4800
tagaagcaca actctttggt tatattggac tagttataat agtgagtaga tttcttttgt    4860
attcctattt ttcttcctta ttaatgtatc ttgttctcca ttttttcttt tagacagaag    4920
atatgttgtg ggatcatcta taaaggccgt tttggggaag tcctcattga cacacatctc    4980
ttcaagcctt gctgcagcaa taagaaagca gctgctgaga agccagagga gcaggggcca    5040
gagcctctgc ccatctccac tcaggagtgg tgactgaggt ttttatgtag aaggggaaca    5100
aaaaaaaaaa tatctgaatt ttgaaaaacc acaaagctac aaactgaccc tcttttttttt    5160
ttgagacgga gttttgctct tgttacccag gctggagtgc agtggcgtga tcttggctca    5220
ctgcaacttc cgtctcccgg gttcaagtga ttctcctgcc tcagcctccc aagtagctgg    5280
gtttataggt gcccgccacc agacccggct aattttttag ttttagtaga cgggggtttc    5340
caccacgttg gccaggctgg tcttaaatga ccctcttatt tttaacttgg atacctgcta    5400
ttctgccaaa agacaatttc tagagtagtt ttgaatgggt tgatttcccc cactcccaca    5460
aactctgaag ccagtgtcta gcttactaaa aaaagagttg tatataatat ttaagatgct    5520
gagtatttca taggaaagct gaatgctgct gtaaagtgct ctttaagtct tttttttttt    5580
taatcccctt ctaatgaatg aaactagggg aatttcaggg gacagagatg ggatttgttg    5640
tatgataaac tgtatgtagt ttttagtctt tctgtttttga gaagcagtgg ttggggcatt    5700
tttaagatgg ctggctactc ttgttttccc tcatgataat aaatttgtca taactcagta    5760
acatgaactt gccctagag gtagttgtta ataattttga aatattaagg tcttgccaag    5820
cttctgatga ttcacacctg tactactgat tattaagcag gacagactga gctttctgtt    5880
```

6925

```
gcaaatacct  tggaggagaa  agtaatttct  aaatatacag  agaggtaact  tgactatata  5940
tgttgcatcc  tgtgcctccc  ttcatattaa  tatttgataa  agattttaat  ttatgtaaaa  6000
cttctaaagc  agaatcaaag  ctcctcttgg  ggaaatggca  agtctttagg  ataggcaaga  6060
ccctgtatga  atagtaccaa  agcattaccg  catggtagag  aacacactcg  attaaaaatg  6120
ttaagctatc  tgaaaaataa  aatgtgcaag  tcttcaggat  ggcacaaaac  aaaggttaat  6180
gcttcttggg  gcacatttct  tagagggctt  gctgagtgtg  taaatataat  cgacttttgt  6240
ttgtgttaca  tgacttctgt  gacttcattg  aaaatctgca  caattcagtt  tcagctctgg  6300
attacttcag  ttgacctttg  tgaaggtttt  tatctgtgta  gaatgggtgt  ttgacttgtt  6360
ttagcctatt  aaattttat   tttctttcac  tctgtattaa  aagtaaaact  tactaaaaga  6420
aaagaggttt  gtgttcacat  taaatggttt  tggtttggct  tcttttagtc  aggctttctg  6480
aacattgaga  tatcctgaac  ttagagctct  tcaatcctaa  gattttcatg  aaaagcctct  6540
cacttgaacc  caaaccagag  tactcttact  gcctcttttc  taaatgttca  ggaaaagcat  6600
tgccagttca  gtcttttcaa  aatgagggag  aaacatttgc  ctgccttgta  ataacaagac  6660
tcagtgctta  tttttaaac   tgcattttaa  aaattggata  gtataataac  aataaggagt  6720
aagccacctt  ttataggcac  cctgtagttt  tatagttctt  aatctaaaca  ttttatattt  6780
ccttcttttg  gaaaaaacct  acatgctaca  agccaccata  tgcacagact  atacagtgag  6840
ttgagttggc  tctcccacag  tctttgaggt  gaattacaaa  agtccagcca  ttatcatcct  6900
cctgagttat  ttgaaatgat  ttttttgta   cattttggct  gcagtattgg  tggtagaata  6960
tactataata  tggatcatct  ctacttctgt  atttatttat  ttattactag  acctcaacca  7020
cagtcttctt  tttcccttc   cacctctctt  tgcctgtagg  atgtactgta  tgtagtcatg  7080
cactttgtat  taatatatta  gaaatctaca  gatctgtttt  gtacttttta  tactgttgga  7140
tacttataat  caaaacttt   actagggtat  tgaataaatc  tagtcttact  agaaaataaa  7200
aggagctgtt  ttgtggcttt  gtttgacagg  tcttcagtaa  gaataatgtt  tttggctttc  7260
acatatactc  agtttaagtg  cttagtatta  ataacaagcc  atgaagggaa  taaattcctc  7320
ttcactgaga  catagacttt  ggaataaaag  acattttaac  tgatgtgcac  aattattaat  7380
ctagtggata  agatggattt  aaaaggaaga  acaaaatgtt  cccagtactt  tttactgtct  7440
gtggttttat  tactatctat  gggcatagtg  ggaagcatca  ttgagacttt  agggaaacta  7500
taaaagttgg  aagggtggtg  gcatcagggg  ttggatgctg  gttctcaagt  tcctagctct  7560
gccccttgtt  agtcatttga  gttaaataat  taatgggaat  atctacttca  caggattatg  7620
aggaatccta  agaggtgtaa  tccatatcaa  acttttagaa  accagttgtt  ttattacctg  7680
ggaaaggtaa  taaagggcca  gactttttat  actactgtta  gtatttaaat  ttgggatagt  7740
ctggatgcca  cctaatacag  ttactatgaa  attaacaagg  taactaagga  agttgatagt  7800
accagtatta  tctattgcta  tgtcctaaat  taccatagat  ttagtggctt  aaaacaaatg  7860
cgtctcagtt  tctgtctgag  catggtttag  ataggtcctt  tagaaagctc  atggtctcat  7920
ctgcattctc  acctggtgat  ttgggaagaa  ctcatttcag  cctcactcgg  ctggcagaat  7980
tcagttcttg  ccactgcagg  actgagtgtc  cagacctctc  actggttgtc  agctggaggc  8040
ccccgcttag  ttccttgcca  gctgggtgct  ccctgcatgg  cctggctgct  gactggacca  8100
ctgacatgat  tactgtcact  accagcaagt  gtcgagagcc  aagctgccag  caagaggggt  8160
cttttcaggt  cctgcccata  tccaagggga  gaggctcata  cgaaggattg  gataccaaga  8220
ggtgcgggtg  gggctaatgg  gaaggcacct  agagtttgtc  acagcttttt  ttttttttaa  8280
ctgaatctct  ttaaattggt  cgtctcgccc  tacaatgcaa  atgctttgtg  tagcaagtaa  8340
aaagaaaaat  ggctctcaca  atatgaaaaa  ccctggctgg  gcactgtggc  ttatataaac  8400
ctgtaatccc  agcactttgg  gaggcccagg  cgggtggatc  ccttgaggtc  aggagttcaa  8460
gtccaaccag  gccaacatgg  tgaaacaccg  tctctactaa  aaataaaaaa  attagccagg  8520
catggtggca  tgcgcctgtg  gtcccagcca  ctcgagagat  tgaggcagga  gaattgcttg  8580
aacctgggag  gtagaggttg  cagtgagctg  agttgggcca  ctgcactcca  gtctgggtga  8640
cagagtaaga  ctccacctcc  aaagaaaaaa  agaaaagac   ctactgttgg  gccagacact  8700
tttaaacatt  gtttaagtaa  ccctgcaaag  taaaaaaaaa  tctatttacc  ggtaagagga  8760
ggtgccagga  ggtcatgtaa  cttgaatgaa  agaatctgct  tttcttattt  gaaagccttt  8820
gttctctaaa  ctgtctcctg  tctgctgcag  taatgctgtc  ctaaccctca  ttggaaacta  8880
ttccctgggt  ctcttcttgc  ctcccttctt  tctgaaggct  gaaatgaggg  gcaagtttaa  8940
cttttgcaga  tacgttgatc  tttaacttaa  atcaaattct  gttttttaat  tttgataatg  9000
ttcaaagtac  ctattatctg  tcttttgtgt  gagaaaactg  ctggaggttt  agtgaaacga  9060
tatcttaaaa  caattcatca  aggtggctgc  tctgcagtga  acaatagaag  gtaccctggg  9120
agctcttcta  ttcagcgtcc  ctagaacagt  ttcctagtgc  cccagattta  gcattgtagt  9180
ggccaggcaa  tcatttttgt  gtgatgttca  gtgaactcgg  aagggaggag  aaagccaaat  9240
tagatcaaag  atagataatt  tcacaggctc  atgttctcaa  agaaagggat  ctgcgggttc  9300
tgtctaacaa  tttctcaagc  tgtggagttt  ggttactcat  tgtagtcatg  agaatgcttt  9360
aggtatcaaa  taccttacac  cctggttaga  aactgcttgt  tattgtatgt  tgactagggg  9420
gtcttagaca  aacttagttg  caagctttag  catgaaagaa  cttagtcatt  cagtttagag  9480
agagacaaaa  gattttttg   cgaaagcctg  ctctttatct  gaaaggggaa  aatgatttat  9540
```

6926

```
tctgttttac agcatttatt ctctaaactt ctatggctta tattagctta actgtgtctc    9600
caggtattgg cttttttttt tttttttttt tcagacagag tcttgctctt gttacccagg    9660
ctggagtgca atggcgtgat ctcggctcac tgcaacctcc gcctcctggg ttcaagcgat    9720
cctcctgcct cagcctcccg agtagctggg attacaggcg cctgccacca cgcccag       9777
```

<210> 9357
<211> 8672
<212> DNA
<213> Homo sapiens

<400> 9357

```
attctgatgc tcacagtacc acctcaagtg cctccccagc tcaatctcct tgttacagta      60
accagtcaga tgacggctca gatacagaga tggcttctgg ttctaacaga acaccagttt     120
tttccttttt agatctcact tactggaaaa ggtaaaagaa acaaagtatc tctctaacca     180
gcaaaccatc ttaattatgg gcagtatttt tctacttcct tagcaattaa atggcatttg     240
gcaaacagtt ggtaacacac gattgcagtg gattaagcag gaattgagca gggaagtggg     300
atttttgtat gttcttccta ttaaaattta tttaaaataa aaatcacatc aaggtaccta     360
cattgcctat tgctagataa gtggagtaga aagacaatat gcagtggaga gaatcagtaa     420
aactaagagt tggtccttca aaaagacgtg accaaaaata tactagagat aaagtggatc     480
aggaaaagga gataatacac ataagcaatt ttaggaaaga gaaaagagac ttaggtatag     540
ataaagcaga catttaaaaa ataataggat attatagaca acttgatgcc aataaatttg     600
aacatacagg tgaagcaggt acagtactag aaaaaagaca tgttgctaaa gctgtctcaa     660
gaaaaagtga aaaacggaga taatctcata ataaattgat tcaggccagg tgtgatggct     720
cacacctgta atcctagcat tttgagaggc caaggtgagg ggattgtttg agcctaggag     780
gttaggtttg cagtaagcta tttttgcacc attgcactcc agcctggtga taaagcaaga     840
ctctatttaa aaaaacaaac aaacaaacaa acaaaccaca ataggcaagt tgtactaaac     900
atccaggaac agatgattgg agcctatgca ctggcttttc cagactatgg ataaaatagg     960
gcataggccc caagcatttt taaggctgat ataagtttga taccaaaaca aatatatcat    1020
cagccactag ggttattcta ggtatgtaag attggtttga acatgagacg atcaactaat    1080
ataatttacc acattgacag tttctttttt tttttttttt ttgagacgga gttttgctct    1140
tgttgccaag ctatagtgca atggctcgat ctctgctcac tgcagcctct gcctcccggg    1200
ttcagtgatt ctcctgcctt agcctcccga gtagctggga ttacaggtgc atggccacca    1260
cacctggcta attttttgta tttttagtag aaaaggggtt tcaccatgtt ggtcaggctg    1320
gtctcgaact cctgacctta ggtgatccac ctgcctcagc ctcccaaagt gttgggatta    1380
taggcgtgag ccaccgtgcc cagcccacat tgatagtttc taaaggaagg tgttgtcttc    1440
ttagtggtgc aaagaaggag tttgacaaat ttgaacattc ctttaaggtt taaaaaaaaa    1500
aaagttttag caaaatagga atagaaggaa acttttttac ttagacaaca ggtatcttac    1560
aaaaaggaca aaagtacata atacataatt gtgataaaat gaaagcattt tctctatgat    1620
caggaacaaa tcaagagtgt tgactatcac catttctatt cagcattata cagaaggttc    1680
taaccaatac aatattggta gtagtgtagt agtaaacact ttagaaaagt gcctagtgca    1740
tagtgtaagt actttaaagt actttaaacc actttgtttg catttattta atcttttttt    1800
tttttttttt gagacagagt ttcactctgt agcccagact ggagtgcagt ggtgttatct    1860
tggctcactg caatgtccgc ctcctgggct caggcaattc tcccacctca gccgcccaaa    1920
tagctgggtc tacaggcacg caccaccatg cctggctaat ttttgtattt agttagagat    1980
ggggtttcgc catattggcc aggctggtct tgaacttcta gcttcaagtg atctgcctgc    2040
cttgacctcc caaagtgctg ggattacagg tgtgagttac tgcacctggc cttatttagt    2100
ctttatgaca attctgtgaa gcattatgtg aaaacacagg tacaagagg aagtactttg     2160
tttaaggtta catagtaagt agagcaggat ttaaatctag gcagtttggc attagaatga    2220
tacattttat catagtgtta ggaaatataa aataatgtag taaaatatca aaagcccttt    2280
ggaggagtta tgtaaaaatc atacaatatt gtcgaataac atttatttat gtgtgtgtgt    2340
gtgtgtgtgt gtgtgtgtgt gtgtgtatgt atatatataa atatatgtct atgttgagag    2400
agagagactc actctgtcac ttaggctgga gtgcagtggt gtgatcttgg ctcactgcaa    2460
cctccgcctc ctgggttcaa gcgatttttcc tgtctcagcc tccggagtag ctgggattac    2520
aggcatgcac caccacccc tgctaatttt tgtattttta gtagagattg ggtttcacca    2580
tgctggccag gctgatagtg aactcctgac ctcaggtgat ctgctcgcct ggcctccca    2640
aagtgctggg attacaggca tgaaccactg cgccggccg ttgaataaca tttaaagaca    2700
cctaaataaa ttgagaggta tagcacattc atagatatta ttaaactgac tgttagggag    2760
atgatcactt tgtagattca gggtaattgc agtcaaaatc ccaacatatt tatggaactt    2820
tacaagctaa tttataattt atatagaaaa gcaaagggcc caaaataggc atcttcagaa    2880
gaaaagaaa gatgtggata aacttgccct aacagaaatc aagacatatt atgaagccat    2940
```

```
ggtaattaat gtgttttggg actaggaata gaaaaataaa ccaatggaat agtatagaga   3000
gcctggaaac aaggccacat atgtatatag cacttgttat gtgatacatg atgtgggggt   3060
gattggtggg cgaaaatggt ctgttcaata agtgttgcta ggatattaag aacaacatgg   3120
ttattcatgt ggaaaaattg ggcttgggtt ccctacctca caccatagac aaacaccaat   3180
tacagatgca ttaaagtaga aaatagatta tgacttttga gtgggaaagg attttttat    3240
gacagagtac ttaagcattt aaaaaaacct ccaggtttaa ttacattata attatgaact   3300
taaattcatc aaataatacc ataaagaaaa tgaaatgata tccagcacat atatctgaca   3360
aaggattagt atctggaata tacagacaac tcctacaatg gaagaaaaag ataaaccaac   3420
agaaaaatgg acacacttag aaaggaatca tgaaataact cattaaatga taatgtgttc   3480
aaactttttg aaaatcaagg aaatacaaag taaaatttca atgagatacc attttatact   3540
cattagattg gtgaaaaaac taaaataaag tctattacca aatgttgggg agaaggtatg   3600
gaatgatgag aacactgtca gttataggtg taaatagtta taaccatgta gataaatggc   3660
cgtttttgag taaagttgaa gacgttccca ttcctatatg ccagcaatat aaactagtaa   3720
aaacctttaa gatgtgtcca ctgatttata cattaaaata agagtagata aataaaactg   3780
tgttatatat tcacagggta gaatattata catgttaaaa tgaaataaag ctctataaca   3840
atatgtatgg atctcaacgt tgactaaaac attgcagaat acattgtgat tctgtgtgtg   3900
tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg taatggataa ctgtgcagta tgattagaga   3960
tgccaacata cggtgaaacc atgaagtata aagaaaaggg agtgataaac ctaaaattaa   4020
gtggggagag gatgagatga ggtaggatgg gactgtggag gggcctgcag ggggcttcat   4080
aggaaatgat cttttttccc ttagagtatg tggtctgtag gcattctcat tgtgttgtca   4140
ttttttgatgc ctttgctaac acacaccctt ttttgttttt ttttgagaca gagttttgct   4200
ctgtctccca ggctagagtg cagtggtgtg atttcggctc actgcaacct ccacttcctg   4260
ggttcaagtg attctactgc ctcagtctcc caagtagctg ggactacagg cacgtgccac   4320
cacgcctggc taattttttgc attttttagta gagatggggt ttcgccatgt tggccaggct   4380
gatctcgaac tcctgacctc aagttatctg cccacctcag cctcccaaac tgctgggatt   4440
acaggtgtaa gccaccacac ccggcccaca catgtatttt tatctactca gtatttaatt   4500
aaaaattacc actcaagcac ttaggagttg ataaagaaaa aaaattaaat atatataaaa   4560
aattgctagc tgcatcagcc tgtttatggt ggctgatttt ttttttcaaga gttggtgatt   4620
ttggaggaaa tagttaacaa catcaggggc agcctttgaa actgactgct gtctttcaaa   4680
atgccgtctt cctcaatatt tgagaagatt ccagtgtggc ctttaaggca actgggtaat   4740
tcccttctc tagctaattg gggttactct aggagccctt tcacttggaa tgtgcaagat   4800
tgtagaagca caactctttg gttatattgg actagttata atagtgagta gatttctttt   4860
gtattcctat ttttcttcct tattaatgta tcttgttctc cattttttct tttagacaga   4920
agatatgttg tgggatcatc tataaaggcc gttttgggga agtcctcatt gacacacatc   4980
tcttcaagcc ttgctgcagc aataagaaag cagctgctga gaagccagag gagcaggggc   5040
cagagcctct gcccatctcc actcaggagt ggtgactgag gtttttatgt agaaggggaa   5100
caaaaaaaaa aatatctgaa ttttgaaaaa ccacaaagct acaaactgac cctctttttt   5160
ttttgagacg gagttttgct cttgttaccc aggctggagt gcagtggcgt gatcttggct   5220
cactgcaact tccgtctccc gggttcaagt gattctcctg cctcagcctc ccaagtagct   5280
gggtttatag gtgcccgcca ccagacccgg ctaattttttt agttttagta gagacggggt   5340
ttcaccacgt tggccaggct ggtcttaaat gaccctctta ttttttaactt ggatacctgc   5400
tattctgcca aaagacaatt tctagagtag ttttgaatgg gttgatttcc cccactccca   5460
caaactctga agccagtgtc tagcttacta aaaaaagagt tgtatataat atttaagatg   5520
ctgagtattt cataggaaag ctgaatgctg ctgtaaagtg ctctttaagt ctttttttttt   5580
tttaatcccc ttctaatgaa tgaaactagg ggaatttcag gggacagaga tgggatttgt   5640
tgtatgataa actgtatgta gtttttagtc tttctgtttt gagaagcagt ggttggggca   5700
tttttaagat ggctggctac tcttgtttttc cctcatgata ataaatttgt cataactcag   5760
taacatgaac ttgcccctag aggtagttgt taataatttt gaaatattaa ggtcttgcca   5820
agcttctgat gattcacacc tgtactactg attattaagc aggacagact gagctttctg   5880
ttgcaaatac cttggaggag aaagtaattt ctaaatatac agagaggtaa cttgactata   5940
tatgttgcat cctgtgcctc ccttcatatt aatatttgat aaagatttta atttatgtaa   6000
aacttctaaa gcagaatcaa agctcctctt ggggaaatgg caagtctttta ggataggcaa   6060
gaccctgtat gaatagtacc aaagcattac cgcatggtag agaacacact cgattaaaaa   6120
tgttaagcta tctgaaaaat aaaatgtgca agtcttcagg atggcacaaa acaaaggtta   6180
atgcttcttg gggcacattt cttagagggc ttgctgagtg tgtaaatata atcgactttt   6240
gtttgtgtta catgacttct gtgacttcat tgaaaatctg cacaattcag tttcagctct   6300
ggattacttc agttgacctt tgtgaaggtt tttatctgtg tagaatgggt gtttgacttg   6360
ttttagccta ttaaattttt attttcttttc actctgtatt aaaagtaaaa cttactaaaa   6420
gaaaagaggt ttgtgttcac attaaatggt tttggtttgg cttctttttag tcaggctttc   6480
tgaacattga gatatcctga acttagagct cttcaatcct aagattttca tgaaaagcct   6540
ctcacttgaa cccaaaccag agtactctta ctgcctcttt tctaaatgtt caggaaaagc   6600
```

6928

```
attgccagtt cagtctttt aaaatgaggg agaaacattt gcctgccttg taataacaag   6660
actcagtgct tatttttaa actgcatttt aaaaattgga tagtataata acaataagga   6720
gtaagccacc ttttataggc accctgtagt tttatagttc ttaatctaaa cattttatat   6780
ttccttcttt tggaaaaaac ctacatgcta caagccacca tatgcacaga ctatacagtg   6840
agttgagttg gctctcccac agtctttgag gtgaattaca aaagtccagc cattatcatc   6900
ctcctgagtt atttgaaatg attttttttg tacattttgg ctgcagtatt ggtggtagaa   6960
tatactataa tatggatcat ctctacttct gtatttattt atttattact agacctcaac   7020
cacagtcttc ttttcccct tccacctctc tttgcctgta ggatgtactg tatgtagtca   7080
tgcactttgt attaatatat tagaaatcta cagatctgtt ttgtactttt tatactgttg   7140
gatacttata atcaaaactt ttactagggt attgaataaa tctagtctta ctagaaaata   7200
aaaggagctg ttttgtggct ttgtttgaca ggtcttcagt aagaataatg tttttggctt   7260
tcacatatac tcagtttaag tgcttagtat taataacaag ccatgaaggg aataaattcc   7320
tcttcactga gacatagact ttggaataaa agacatttta actgatgtgc acaattatta   7380
atctagtgga taagatggat ttaaaaggaa gaacaaaatg ttcccagtac tttttactgt   7440
ctgtggtttt attactatct atgggcatag tgggaagcat cattgagact ttagggaaac   7500
tataaaagtt ggaagggtgg tggcatcagg ggttggatgc tggttctcaa gttcctagct   7560
ctgcccttg ttagtcattt gagttaaata attaatggga atatctactt cacaggatta   7620
tgaggaatcc taagaggtgt aatccatatc aaacttttag aaaccagttg ttttattacc   7680
tgggaaaggt aataaagggc cagactttt atactactgt tagtatttaa atttgggata   7740
gtctggatgc cacctaatac agttactatg aaattaacaa ggtaactaag gaagttgata   7800
gtaccagtat tatctattgc tatgtcctaa attaccatag atttagtggc ttaaaacaaa   7860
tgcgtctcag tttctgtctg agcatggttt agataggtcc tttagaaagc tcatggtctc   7920
atctgcattc tcacctggtg atttgggaag aactcatttc agcctcactc ggctggcaga   7980
attcagttct tgccactgca ggactgagtg tccagacctc tcactggttg tcagctggag   8040
gcccccgctt agttccttgc cagctgggtg ctccctgcat ggcctggctg ctgactggac   8100
cactgacatg attactgtca ctaccagcaa gtgtcgagag ccaagctgcc agcaagaggg   8160
gtcttttcag gtcctgccca tatccaaggg gagaggctca tacgaaggat tggataccaa   8220
gaggtgcggg tggggctaat gggaaggcac ctagagtttg tcacagcttt tttttttttt   8280
aactgaatct ctttaaattg gtcgtctcgc cctacaatgc aaatgctttg tgtagcaagt   8340
aaaaagaaaa atggctctca caatatgaaa aaccctggct gggcactgtg gcttatataa   8400
acctgtaatc ccagcacttt gggaggccca ggcgggtgga tcccttgagg tcaggagttc   8460
aagtccaacc aggccaacat ggtgaaacac cgtctctact aaaaataaaa aaattagcca   8520
ggcatggtgg catgcgcctg tggtcccagc cactcgagag attgaggcag gagaattgct   8580
tgaacctggg aggtagaggt tgcagtgagc tgagttgggc cactgcactc cagtctgggt   8640
gacagagtaa gactccacct ccaaagaaaa aa                                 8672


<210>  9358
<211>  8670
<212>  DNA
<213>  Homo sapiens

<400>  9358
attctgatgc tcacagtacc acctcaagtg cctccccagc tcaatctcct tgttacagta     60
accagtcaga tgacggctca gatacagaga tggcttctgg ttctaacaga acaccagttt    120
tttccttttt agatctcact tactggaaaa ggtaaaagaa acaaagtatc tctctaacca    180
gcaaaccatc ttaattatgg gcagtatttt tctacttcct tagcaattaa atggcatttg    240
gcaaacagtt ggtaacacac gattgcagtg gattaagcag gaattgagca gggaagtggg    300
attttttgtat gttcttccta ttaaaattta tttaaaataa aaatcacatc aaggtaccta    360
cattgcctat tgctagataa gtggagtaga aagacaatat gcagtggaga gaatcagtaa    420
aactaagagt tggtccttca aaaagacgtg accaaaaata tactagagat aaagtggatc    480
aggaaaagga gataatacac ataagcaatt ttaggaaaga gaaaagagac ttaggtatag    540
ataaagcaga catttaaaaa ataataggat attatagaca acttgatgcc aataaatttg    600
aacatacagg tgaagcaggt acagtactag aaaaaagaca tgttgctaaa gctgtctcaa    660
gaaaaagtga aaaacggaga taatctcata ataaattgat tcaggccagg tgtgatggct    720
cacacctgta atcctagcat tttgagaggc caaggtgagg ggattgtttg agcctaggag    780
gttaggtttg cagtaagcta tttttgcacc attgcactcc agcctggtga taaagcaaga    840
ctctatttaa aaaaacaaac aaacaaacaa acaaaccaca ataggcaagt tgtactaaac    900
atccaggaac agatgattgg agcctatgca ctggcttttc cagactatgg ataaaatagg    960
gcataggccc caagcatttt taggctgat ataagtttga taccaaaaca aatatatcat   1020
cagccactag ggttattcta ggtatgtaag attggtttga acatgagacg atcaactaat   1080
```

```
ataatttacc acattgacag tttctttttt tttttttttt ttgagacgga gttttgctct 1140
tgttgccaag ctatagtgca atggctcgat ctctgctcac tgcagcctct gcctcccggg 1200
ttcagtgatt ctcctgcctt agcctcccga gtagctggga ttacaggtgc atggccacca 1260
cacctggcta aattttttgta ttttttagtag aaaagggggtt tcaccatgtt ggtcaggctg 1320
gtctcgaact cctgacctta ggtgatccac ctgcctcagc ctcccaaagt gttgggatta 1380
taggcgtgag ccaccgtgcc cagcccacat tgatagtttc taaaggaagg tgttgtcttc 1440
ttagtggtgc aaagaaggag tttgacaaat ttgaacattc ctttaaggtt taaaaaaaaa 1500
aaagttttag caaaatagga atagaaggaa actttttttac ttagacaaca ggtatcttac 1560
aaaaaggaca aaagtacata atacataatt gtgataaaat gaaagcattt tctctatgat 1620
caggaacaaa tcaagagtgt tgactatcac catttctatt cagcattata cagaaggttc 1680
taaccaatac aatattggta gtagtgtagt agtaaacact ttagaacagt gcctagtgca 1740
tagtgtaagt actttaaagt actttaaacc actttgtttg catttatttta atctttttttt 1800
tttttttttt gagacagagt ttcactctgt agcccagact ggagtgcagg ggtgttatct 1860
tggctcactg caatgtccgc ctcctgggct caggcaattc tcccacctca gccgcccaaa 1920
tagctgggtc tacaggcacg caccaccatg cctggctaat ttttgtattt tagtagagat 1980
ggggtttcgc catattggcc aggctggtct tgaacttcta gcttcaagtg atctgcctgc 2040
cttgacctcc caaagtgctg ggattacagg tgtgagttac tgcacctggc cttatttagt 2100
ctttatgaca attctgtgaa gcattatgtg aaaacacagg tacaaagagg aagtactttg 2160
tttaaggtta catagtaagt agagcaggat ttaaatctag gcagtttggc attagaatga 2220
tacattttat catagtgtta ggaaatataa aataatgtag taaaatatca aaagcccttt 2280
ggaggagtta tgtaaaaatc atacaatatt gtcgaataac atttatttat gtgtgtgtgt 2340
gtgtgtgtgt gtgtgtgtgt gtgtgtatgt atatatataa atatatgtct atgttgagag 2400
agagagactc actctgtcac ttaggctgga gtgcagtggt gtgatcttgg ctcactgcaa 2460
cctccgcctc ctgggttcaa gcgattttcc tgtctcagcc tccggagtag ctgggattac 2520
aggcatgcac caccacaccc tgctaatttt tgtattttta gtagagattg ggtttcacca 2580
tgctggccag gctgatagtg aactcctgac ctcaggtgat ctgctcgcct tggcctccca 2640
aagtgctggg attacaggca tgaaccactg cgcccggccg ttgaataaca tttaaagaca 2700
cctaaataaa ttgagaggta tagcacattc atagatatta ttaaactgac tgttagggag 2760
atgatcactt tgtagattca gggtaattgc agtcaaaatc ccaacatatt tatggaactt 2820
tacaagctaa tttataattt atatagaaaa gcaaagggcc caaaataggc atcttcagaa 2880
gaaaagaaa gatgtggata aacttgccct aacagaaatc aagacatatt atgaagccat 2940
ggtaattaat gtgttttggg actaggaata gaaaaataaa ccaatggaat agtatagaga 3000
gcctggaaac aaggccacat atgtatatag cacttgttat gtgatacatg atgtgggggt 3060
gattggtggg cgaaaatggt ctgttcaata agtgttgcta ggatattaag aacaacatgg 3120
ttattcatgt ggaaaaattg ggcttgggtt ccctacctca caccatagac aaacaccaat 3180
tacagatgca ttaaagtaga aaatagatta tgacttttga gtgggaaagg attttttttat 3240
gacagagtac ttaagcattt aaaaaaacct ccaggtttaa ttacattata attatgaact 3300
taaattcatc aaataatacc ataaagaaaa tccaatgata cccagcccat atatctcaca 3360
aagcattagt atctgcaaca cacagccaac tcctccaatg gaagaaaaag ataaccccca 3420
gcaaaaatgg ccacacttag aaaggaatca tgaaataact cattaaatga taatgtgttc 3480
aaacttttg aaaatcaagg aaatacaaag taaaatttca atgagatacc atttttatact 3540
cattagattg gtgaaaaaac taaaataaag tctattacca aatgttgggg agaaggtatg 3600
gaatgatgag aacactgtca gttataggtg taaatagtta taaccatgta gataaatggc 3660
cgttttttgag taaagttgaa gacgttccca ttcctatatg ccagcaatat aaactagtaa 3720
aaacctttaa gatgtgtcca ctgatttata cattaaaata agagtagata aataaaactg 3780
tgttatatat tcacagggta gaatattata catgttaaaa tgaaataaag ctctataaca 3840
atatgtatgg atctcaacgt tgactaaaac attgcagaat acattgtgat tctgtgtgtgt 3900
tgtgtgtgtg tgtgtgtgtg tgtgtgtgta atggataact gtgcagtatg attagagatg 3960
ccaacatacg gtgaaaccat gaagtataaa gaaaagggag tgataaacct aaaattaagt 4020
ggggagagga tgagatgagg taggatggga ctgtggaggg gcctgcaggg ggcttcatag 4080
gaaatgatct ttttttccctt agagtatgtg gtctgtaggc attctcattg tgttgtcatt 4140
tttgatgcct ttgctaacac acacccttttt ttgttttttt ttgagacaga gttttgctct 4200
gtctcccagg ctagagtgca gtggtgtgat ttcggctcac tgcaacctcc acttcctggg 4260
ttcaagtgat tctactgcct cagtctccca agtagctggg actacaggca cgtgccacca 4320
cgcctggcta attttttgcat ttttagtaga gatggggttt cgccatgttg gccaggctga 4380
tctcgaactc ctgacctcaa gttatctgcc cacctcagcc tcccaaactg ctgggattac 4440
aggtgtaagc caccacaccc ggcccacaca tgtatttttta tctactcagt atttaattaa 4500
aaattaccac tcaagcactt aggagttgat aaagaaaaaa aattaaatat atataaaaaa 4560
ttgctagctg catcagcctg tttatggtgg ctgattttttt tttcaagagt tggtgatttt 4620
ggaggaaata gttaacaaca tcaggggcag cctttgaaac tgactgctgt cttctcaaaat 4680
gccgtcttcc tcaatatttg agaagattcc agtgtggcct ttaaggcaac tgggtaattc 4740
```

6930

```
cccttctcta gctaattggg gttactctag gagccctttc acttggaatg tgcaagattg    4800
tagaagcaca actctttggt tatattggac tagttataat agtgagtaga tttcttttgt    4860
attcctattt ttcttcctta ttaatgtatc ttgttctcca ttttttcttt tagacagaag    4920
atatgttgtg ggatcatcta taaaggccgt tttggggaag tcctcattga cacacatctc    4980
ttcaagcctt gctgcagcaa taagaaagca gctgctgaga agccagagga gcaggggcca    5040
gagcctctgc ccatctccac tcaggagtgg tgactgaggt ttttatgtag aaggggaaca    5100
aaaaaaaaaa tatctgaatt ttgaaaaacc acaaagctac aaactgaccc tctttttttt    5160
ttgagacgga gtaatgctct tgttacccag gctggagtgc agtggcgtga tcttggctca    5220
ctgcaacttc cgtctcccgg gttcaagtga ttctcctgcc tcagcctccc aagtagctgg    5280
gtttataggt gcccgccacc agacccggct aattttttag ttttagtaga dacggggttt     5340
caccacgttg gccaggctgg tcttaaatga ccctcttatt tttaacttgg atacctgcta    5400
ttctgccaaa agacaatttc tagagtagtt ttgaatgggt tgatttcccc cactcccaca    5460
aactctgaag ccagtgtcta gcttactaaa aaaagagttg tatataatat ttaagatgct    5520
gagtatttca taggaaagct gaatgctgct gtaaagtgct ctttaagtct tttttttttt     5580
taatcccctt ctaatgaatg aaactagggg aatttcaggg gacagagatg ggatttgttg    5640
tatgataaac tgtatgtagt ttttagtctt tctgttttga gaagcagtgg ttggggcatt    5700
tttaagatgg ctggctactc ttgttttccc tcatgataat aaatttgtca taactcagta    5760
acatgaactt gcccctagag gtagttgtta ataattttga aatattaagg tcttgccaag    5820
cttctgatga ttcacacctg tactactgat tattaagcag gacagactga gctttctgtt    5880
gcaaatacct tggaggagaa agtaatttct aaatatacag agaggtaact tgactatata    5940
tgttgcatcc tgtgcctccc ttcatattaa tatttgataa agattttaat ttatgtaaaa    6000
cttctaaagc agaatcaaag ctcctcttgg ggaaatggca agtctttagg ataggcaaga    6060
ccctgtatga atagtaccaa agcattaccg catggtagag aacacactcg attaaaaatg    6120
ttaagctatc tgaaaaataa aatgtgcaag tcttcaggat ggcacaaaac aaaggttaat    6180
gcttcttggg gcacatttct tagagggctt gctgagtgtg taaatataat cgacttttgt    6240
ttgtgttaca tgacttctgt gacttcattg aaaatctgca caattcagtt tcagctctgg    6300
attacttcag ttgacctttg tgaaggtttt tatctgtgta gaatgggtgt ttgacttgtt    6360
ttagcctatt aaattttttat tttctttcac tctgtattaa aagtaaaact tactaaaaga    6420
aaagaggttt gtgttcacat taaatggttt tggttggct tcttttagtc aggctttctg    6480
aacattgaga tatcctgaac ttagagctct tcaatcctaa gattttcatg aaaagcctct    6540
cacttgaacc caaaccagag tactcttact gcctcttttc taaatgttca ggaaaagcat    6600
tgccagttca gtcttttcaa aatgagggag aaacatttgc ctgccttgta ataacaagac    6660
tcagtgctta tttttttaaac tgcattttaa aaattggata gtataataac aataaggagt    6720
aagccacctt ttataggcac cctgtagttt tatagttctt aatctaaaca ttttatattt    6780
ccttcttttg gaaaaaacct acatgctaca agccaccata tgcacagact atacagtgag    6840
ttgagttggc tctcccacag tctttgaggt gaattacaaa agtccagcca ttatcatcct    6900
cctgagttat ttgaaatgat ttttttttgta catttttggct gcagtattgg tggtagaata    6960
tactataata tggatcatct ctacttctgt atttatttat ttattactag acctcaacca    7020
cagtcttctt tttcccccttc cacctctctt tgcctgtagg atgtactgta tgtagtcatg    7080
cactttgtat taatatatta gaaatctaca gatctgtttt gtactttta tactgttgga    7140
tacttataat caaaacttttt actagggtat tgaataaatc tagtcttact agaaaataaa    7200
aggagctgtt ttgtggcttt gtttgacagg tcttcagtaa gaataatgtt tttggctttc    7260
acatatactc agtttaagtg cttagtatta ataacaagcc atgaagggaa taaattcctc    7320
ttcactgaga catagacttt ggaataaaag acattttaac tgatgtgcac aattattaat    7380
ctagtggata agatggattt aaaaggaaga acaaaatgtt cccagtactt tttactgtct    7440
gtggttttat tactatctat gggcatagtg ggaagcatca ttgagacttt agggaaacta    7500
taaaagttgg aagggtggtg gcatcagggg ttggatgctg gttctcaagt tcctagctct    7560
gccccttgtt agtcatttga gttaaataat taatgggaat atctacttca caggattatg    7620
aggaatccta agaggtgtaa tccatatcaa actttagaa accagttgtt ttattacctg    7680
ggaaaggtaa taaagggcca gactttttat actactgtta gtatttaaat ttgggatagt    7740
ctggatgcca cctaatacag ttactatgaa attaacaagg taactaagga agttgatagt    7800
accagtatta tctattgcta tgtcctaaat taccatagat ttagtggctt aaaacaaatg    7860
cgtctcagtt tctgtctgag catggtttag ataggtcctt tagaaagctc atggtctcat    7920
ctgcattctc acctggtgat ttgggaagaa ctcatttcag cctcactcgg ctggcagaat    7980
tcagttcttg ccactgcagg actgagtgtc cagacctctc actggttgtc agctggaggc    8040
ccccgcttag ttccttgcca gctgggtgct ccctgcatgg cctggctgct gactggacca    8100
ctgacatgat tactgtcact accagcaagt gtcgagagcc aagctgccag caagaggggt    8160
cttttcaggt cctgcccata tccaagggga gaggctcata cgaaggattg gataccaaga    8220
ggtgcgggtg gggctaatgg gaaggcacct agagtttgtc acagctttt ttttttttaa    8280
ctgaatctct ttaaattggt cgtctcgccc tacaatgcaa atgctttgtg tagcaagtaa    8340
aaagaaaaat ggctctcaca atatgaaaaa ccctggctgg gcactgtggc ttatataaac    8400
```

6931

```
ctgtaatccc agcactttgg gaggcccagg cgggtggatc ccttgaggtc aggagttcaa    8460
gtccaaccag gccaacatgg tgaaacaccg tctctactaa aaataaaaaa attagccagg    8520
catggtggca tgcgcctgtg gtcccagcca ctcgagagat tgaggcagga gaattgcttg    8580
aacctgggag gtagaggttg cagtgagctg agttgggcca ctgcactcca gtctgggtga    8640
cagagtaaga ctccacctcc aaagaaaaaa                                     8670


<210> 9359
<211> 110
<212> DNA
<213> Homo sapiens


<400> 9359
attacaggca tgtgccacca tgcctggcta attttgtat ttttggtag agacagggtt      60
tcgccatgtt tgccaggctg gtctcgaact cctgacctca agtgatctgc               110


<210> 9360
<211> 160
<212> DNA
<213> Homo sapiens


<400> 9360
ttttttttt ttttcagaca gagtcttgct cttgttaccc aggctggagt gcaatggcgt      60
gatctcggct cactgcaacc tccgcctcct gggttcaagc gatcctcctg cctcagcctc     120
ccgagtagct gggattacag gcgcctgcca ccacgcccag                           160


<210> 9361
<211> 160
<212> DNA
<213> Homo sapiens


<400> 9361
ttttttttt ttttcagaca gagtcttgct cttgttaccc aggctggagt gcaatggcgt      60
gatctcggct cactgcaacc tccgcctcct gggttcaagc gatcctcctg cctcagcctc     120
ccgagtagct gggattacag gcgcctgcca ccacgcccag                           160


<210> 9362
<211> 2053
<212> DNA
<213> Homo sapiens


<400> 9362
ttttgaagcc cttgaaatga agtttaggga ccactgatct agaattctct ttatgctcct      60
ccactaccca ttaaccccac tctatagtct gccttttcgc tttcttctct cctcccttct     120
aaacacttcg tagaacacta tgttttctgt tcatgattga ccttcaaatt gccaaatcct     180
ttggccttat aaaccgtatg tacttaacca acactctgtt gttaacaaat ccttcaaaac     240
tgtttctttt tgcttccgct ctgttttttcc tgtcatccac ttatcacttt tcttcatatg    300
ttttctttct tttgttccca gttgttatta tgtggggttc tggttctatt ttatgttctc    360
actgtatatt cagaatcaga tttttagcta ccatgtacca tcttaataat acctagcatt    420
tatttactct ttcctaattg ttatttcagt gcttcagtat ttcagtattc atttaattca    480
ttcagtattc atttaaatct caaaacaact cagtgaggtt gatacaggta taattggtgt    540
ctttttttttc tttttttctga cactggcata tcgaggccca aaggttaagt aatctatgca   600
actaggaggc agtagaactg ggatttaaac ttagactgcc tgtagaggcc atgttcttaa    660
ccactactag attttttggcg tccagatgtc ccttgtattt ctaacttccg tttagttttt   720
ctacctccca ttcaatacat ccattcagtt aatctcaagt gcctgcctct ttcccttgac    780
aaaacacact tgctcattct ttattccttg ccacattaaa gttaacacta tcctccccat    840
cgctagtact atagaggtca ttgaaccttc ccctgcgta tggcctgtga gttttattga      900
ttccagcatg attatttggt gatatttgag tgcgattttg tgctagatcc tgggtgtata    960
```

6932

```
atgatgtatg agacacagac tttgtcctca gggagcttat actctagaaa taattttttt    1020
ttttttcaag agagcgtcct actctgttgc cgaggctgga gtgcagtggt gccaacatgg    1080
cttactgtag cctcaggctc ccgagctcaa ctgatcctcc tgctgcagcc tcccgagtag    1140
gtgggactac agacatggac tatcacacca agctgttttt atttttagtt caggtgggtt    1200
ctcagtttgt tgcccaggct ggtcttgaac tcctgggctc aaatgattct cccacctcat    1260
cctcccaaag tccaagtatt gggattacag gcatgagcca tcatgcctgg ccaataaaat    1320
gttacaacaa attagcagaa tgctgagaga ataaatggtg ataggaaacc tgtatatgta    1380
atggagtttc agataatacc taatatttat tgagcacttt cttttttttt ttttagagac    1440
agtttcact ctgtcactca ggctggagta cagtggtgct atctcaactc actgcaacct    1500
ccacttcctg ggttcaggca gttctcatgc ctcagtcttc tgagtagctg gaattacaag    1560
cacccaccaa cacgcccagc taattttttgt attttttgta gagatggagt ttcaccatgt    1620
tggccaggct ggtcttgaac tcctgacctc aagtaatccg cctgccttgg cctcccaaag    1680
tgctaggatt acaggcatga gccactgcgc ctgacctatt gaacactttc tatatggttg    1740
acattatttt tggttcttca gtacatttaa ttctcataaa gttcctaaat gtatacttct    1800
agatctgaag tatcgggaat acctaattgt acaaagaaca tgccagttgg aagctacagc    1860
atttagcaga agttctaaag taggaaagag cttcatttaa actgtgaact ggccaggtgt    1920
ggtgtctcac gcttgtaatc ccagcacttt gggaggttga aatgggagga tcacttgagc    1980
ccaggagttg gagaccagcc tgggcaacag tgagaccctg tatctaaaaa agaaaaaaaa    2040
aaaaaaagaa aat                                                       2053


<210> 9363
<211> 2052
<212> DNA
<213> Homo sapiens

<400> 9363
ttttgaagcc cttgaaatga agtttaggga ccactgatct agaattctct ttatgctcct      60
ccactaccca ttaaccccac tctgtagtct gccttttcgc tttcttctct cctcccttct     120
aaacacttcg tagaacacta tgttttctgt tcatgattga ccttcaaatt gccaaatcct     180
ttggccttat aaaccgtatg tacttaacca acactctgtt gttaacaaat ccttcaaaac     240
tgttttcttt tgcttccgct ctgttttttcc tgtcatccac ttatcacttt tcttcatatg     300
ttttctttct tttgttccca gttgttatta tgtggggttc tggttctatt ttatgttctc     360
actgtatatt cagaatcaga ttttagcta ccatgtacca tcttaataat acctagcatt     420
tatttactct ttcctaattg ttatttcagt gcttcagtat ttcagtattc atttaattca     480
ttcagtattc atttaattct caaaacaact cagtgaggtt gatacaggta taattggtgt     540
cttttttta ttttttctga cactggcata tcgaggccca aaggttaagt aatctatgca     600
actaggaggc agtagaactg ggatttaaac ttagactgcc tgtagaggcc atgttcttaa     660
ccactactag attttttggcg tccagatgtc ccttgtattt ctaacttccg tttagttttt     720
ctacctcaaa ttcaatacat ccattcagtt aatctcaagt gcctgcctct ttcccttgac     780
aaaacacact tgctcattct ttattccttg ccacattaaa gttaacacta tcctccccat     840
cgctagtact atagaggtca ttgaaccttc ccctgcgta tggcctgtga gttttattga     900
ttccagcatg attatttggt gatatttgag tgcgattttg tgctagatcc tgggtgtata     960
atgatgtatg agacacagac tttgtcctca gggagcttat actctagaaa taattttttt    1020
ttttttcaag agagcgtcct actctgttgc cgaggctgga gtgcagtggt gccaacatgg    1080
cttactgtag cctcaggctc ccgagctcaa ctgatcctcc tgctgcagcc tcccgagtag    1140
gtgggactac agacatggac tatcacacca agctgttttt atttttagtt caggtgggtt    1200
ctcagtttgt tgcccaggct ggtcttgaac tcctgggctc aaatgattct cccacctcat    1260
cctcccaaag tccaagtatt gggattacag gcatgagcca tcatgcctgg ccaataaaat    1320
gttacaacaa attagcagaa tgctgagaga ataaatggtg ataggaaacc tgtatatgta    1380
atggagtttc agataatacc taatatttat tgagcacttt cttttttttt ttttagagac    1440
agttttcgct ctgtcactca ggctggagta cagtggtgct atctcaactc actgcaacct    1500
ccacttcctg ggttcaggca gttctcatgc ctcagtcttc tgagtagctg gaattacaag    1560
cacccaccaa cacgcccagc taattttttgt attttttgta gagatggagt ttcaccatgt    1620
tggccaggct ggtcttgaac tcctgacctc aagtaatccg cctgccttgg cctcccaaag    1680
tgctaggatt acaggcatga gccactgcgc ctgacctatt gaacactttc tatatggttg    1740
acattatttt tggttcttca gtacatttaa ttctcataaa gttcctaaat gtatacttct    1800
agatctgaag tatcgggaat acctaattgt acaaagaaca tgccagttgg aagctacagc    1860
atttagcaga agttctaaag taggaaagag cttcatttaa actgtgaact ggccaggtgt    1920
ggtgtctcac gcttgtaatc ccagcgcttt gggaggttga aatgggagga tcacttgagc    1980
ccaggagttg gagaccagcc tgggcaacag tgagaccctg tatctaaaaa agaaaaaaaa    2040
```

6933

<210> 9364
<211> 266
<212> DNA
<213> Homo sapiens

<400> 9364
ctgtcgccca ggctggagtg cagtggcacc atcttggctc actgcaagct ctgcctccca   60
ggttcacgcc attctcctgc ctcagcctcc ccagtagctg ggactacagg tgcctgccac   120
cacgcccagc taattttttt gtattttttag tagaaatggg gtttcaccgt gttagccagg   180
atggtcttga tctcctgacc tcgtgatctg cacaccttgg cctcccaaag tgctgggatt   240
acaggcgtga accaccgcgc ccggcc   266

<210> 9365
<211> 191
<212> DNA
<213> Homo sapiens

<400> 9365
agcaccatgg ccctcatctt cgcattttac gcttttttttg caagtttatc aacaagctca   60
attaaaccac caactgtttt ctgaaactgg ccagttttgt ccgcaaagtt cttgcactct   120
tctttgagct ctgtggtctg ctgggtaacc tctgagtcca acacccacag cttgttcaac   180
tcatcaaagt g   191

<210> 9366
<211> 191
<212> DNA
<213> Homo sapiens

<400> 9366
agcaccatgg ccctcatctt cgcattttac gcttttttttg caagtttatc aacaagctca   60
attaaaccac caactgtttt ctgaaactgg ccagttttgt ccgcaaagtt cttgcactct   120
tctttgagct ctgtggtctg ctgggtaacc tctgagtcca acacccacag cttgttcaac   180
tcatcaaagt g   191

<210> 9367
<211> 155
<212> DNA
<213> Homo sapiens

<400> 9367
cctcccaggt tcacggcatt ctcctgcctc agcctcccca gtagctggga ctacaggtgc   60
ctgccaccac gcccagctaa ttttttttgta ttttttagtag aaatggggtt tcaccgtgtt   120
agccaggatg gtcttgatct cctgacctcg tgatc   155

<210> 9368
<211> 766
<212> DNA
<213> Homo sapiens

<400> 9368
cagaagtatt aacttgttca aatcgtacaa ccaaggctca agtccatgat tgcccaactc   60
caaagcccat gttctttcta ccttattatg ttggcattgt tttcaatgtc agtttggacc   120
catataaaaa cgcccagctg taccctatga ggaggatata aaaatgtgag atggtagttg   180
acactcggag gacattcata tctccaaacc caaccttatg aagttggcca cagcaagcat   240

```
gttggaaact agaaccaggg gtttcatatc aagccatttg cttaggtctg tatctcaaaa      300
gctttaaata caactttttt tggtgccctc ttgataagga gtcttatact gagctcttct      360
tctcttttat agctggtcca tcagaaagat taaattaaac gtttggccac atggacagtt      420
aatccttaga tcacccagtt ggatggttca ttcctgctat gtttggtttg attttttatt      480
tttggaaaac aaatagtgag tcagtctgct ttccctccct ttctctgcct caccactcct      540
tctggattct cttagatgct ctggtcatac taggtaaaca gtattttct  taaaatttc       600
cttgagccat gacagaatca tgagagagct cccctggctc tgatacttaa tgccccctc       660
taaaaagaaa ggtctatttg aggctattca cttttgtcat cttgaaagag tctctgagtc      720
ttacctagca ggaatatttt gtttctttc  ctaaaaaaaa aaaaaa              766
```

<210> 9369
<211> 6114
<212> DNA
<213> Homo sapiens

<400> 9369
```
ccacatctta tctaaataca taatacagaa gcctgtgtga cttgggcaat gtggccagga       60
gggcacagag actaacacat ccacctcggc aaaaggacat aaaatatgtc ttatggtcag      120
aaaaatcaac attttgtgta tttacttagt ttatgagaag tactgaaaat gctattataa  ·   180
gctgaatttg tgatttcctt ttgaaattct gagttatcct tattttccc  attttgtttt      240
tgcaccaagg agactgtagt caaataaaac agaactacac gcactcgtcg gggcagccgt      300
actgcagaag cacgttgatg cactcctggc tggaggcctg ccgggcgtag gtcagcgctg      360
tgttcccgtg ggcatctcgg gccatgacgt ccaccccgta ccagatcagg agctgcgcca      420
ggaccacatt ccccttgcgg caggccagat ggagcgccgt gcagccgtct ccctccccac      480
aggtctcgtt cacctcctca cgggagccat gtgccagcag caggatggct gtctgcaggt      540
cctcatcagc ggtggcccgc agcagctgct ggcccaggga cagatcagtg cagggtagtg      600
gggccagaaa gagcttctcc tcatatttgg aaaggatcca ccgttccttt tcttccctcg      660
tggacttttc tgagggtttt gtctgtccct ggctgctccc ttcccagatg ctgttggcta      720
ggtcattgcc aatagatgac ataaccttcc tgagctcaac tggccagtca tccagctcca      780
gagatcgcac acgggaaagg cgggtgccaa gactgcggtg gatacctgag cattcaatac      840
acatgaggac tcccaagttc aaactggccc acttaggatt ctgggtctca cagtccacac      900
agtgggcgtt cccacgcatg ttttggatcg actgcagggc catggcctcg ctctggctgg      960
tcagctggga cttgctttta ctgctctcgc atgactgcag gctggccagg atctggctct     1020
ggatggcttg gacccaggca tcccgctcct catatgtcgt ggcttcaaag tgccacgttt     1080
ggccagtggc agacacaatc ataaagttgt tggtgctttt cttctttagg tgtttctttt     1140
tattggcatg aggagagggg ggcgggttga gcttggggcc ggtggtgctg gagatactgg     1200
ggctgaagca tatggagtca cccagcccgg tgtccatgtc cttggatagg tcattgcttt     1260
tagagctgga gatgggtgcg caggccgatg tggctaggga tggccacttt cctgggactt     1320
tgatggtaga tgtctgaagg tcaatctctt ttttatgaat attcttcata taatcaccta     1380
agcttgaata ataggtgagc acgccattgg aacacagggt gacgtatttc tttttccatg     1440
tcttcagcca tttcccactt cgctttaaga gcatgccctg tttaatgggg atggctctgc     1500
cgctcccgat ggtgtcagca tgattctccg gggctttcct ctctttgtct gggtcactcc     1560
ctttctcaga tgtaaacagg ttggaccagc gcatggaccg cttgcaaacg ggggtgggtg     1620
tgttggcagt gggaggaaca ctgaactgag ggtcctcctg gctggtgctg ggagtcgatg     1680
gaatggagga ggaatagtta tttaaactcc cacctccatt tctgttcttc gtaatgtgca     1740
cggtggaaac ctgtgtggaa cagaaggagg aatggcttca aaaattgggt agtggcttgc     1800
agggtcctat agacagctca caattacctt ttaaaaagat acattttctg ggccaggcat     1860
ggtggctcac acctgtaatc acagcacttt gggaggccaa cgtgggtgga tcacgaggtc     1920
aggagttcaa gaccatcctg gccaacatgg tgaaaccctg tctttacaaa aaaaaaaaaa     1980
gaaaaaaaaa ttagctgggc atggtggcac atgcctgtaa ttccagttac tcaagaggct     2040
gaggcaggag aattgcttga acagggacct gggaggcaga gcctgcagtg agccaagatc     2100
gcgcgattgc actccagcct gggctacaga aagagagtcc ataaaaaaaa aaaaaaaaaa     2160
aaaaaagat  acattttctg ttgtttggat agaatattta ctcatactag ctcactaact     2220
aaacagagct gcagatcagt tcttactcca gcacattctt tttacaacac ttaagatgac     2280
taaatgcaac atgaaatggg gaagatttaa aaaaagatgg ctttgacttc agcatgaaac     2340
agatacaagt gtacgatgaa aatacaacct caataaaagt gccacttacc gcaaatgagt     2400
gtaactgttc atcaggtatg ctcaaagatc tatctgcatc tctataaaat aagaaagcgc     2460
gttacttcaa aaactgttaa tatcttagta taatatttgt ttagtaaaat actgcctcct     2520
gtgtgctttg gtgtttacca aagcagtttt tacgaattct tctcctggat cctgacttgc     2580
agagggtttc ctgacttctt ctttctcagc acatcatggc ctgtaccgtg aagtctttta     2640
```

```
tatgataacc agtcagaaat gcccgtgagt attgactctc cctaacaggc catggcaata   2700
aaccaaacat attttcactc ttctaaccac acattgaaac acaagaatgt tctacaaagc   2760
agtagtagta aactttaata aatgtaaatg tgattcagat ttcctagctt cctttctctt   2820
tagttctctg tagtatactc tcatgatgta tttatgtact ttctgttgtt tgaatgacaa   2880
actcatctgc ctttttaaga cgccagtctt tgatgaactt taaactttgt aaaactaatg   2940
cattgtgcct gtgtataaac cagtggttct ccaaatgtgc tgtgtggacc tctcgggatc   3000
ccgaagaccc cttccagaag gcctaagagg tcataactgt tctttttttt tttttttttt   3060
gagaccaagt tttactcttg ttgcccaggc tggagtgcaa tggtgtgatc tcggctcatg   3120
gcaaccttcg cctcccaggt tcaagtgatt ctcctacccc agcctcccaa gtagcaggga   3180
ttacaggcac ctgccaccac tcctggctaa gttttgtatt tttagtagag atgtggtttc   3240
accatgttgg ccaggctggt cttgaactcc taacctcagg tgatccgctt gcctcggcct   3300
cccaaagtgc tgggattaca ggcctgagcc actgtgcctg gccaacactg ttctgaatca   3360
tactaattaa acctgagaaa gctgatgaaa aattttaaaa atttgtgaaa gtaatacaaa   3420
gccattgcct gctctttcgt tgacacttgc catgattata taaaagcaaa agtgggtaca   3480
atggctggtt tctcagcata aatcaaggca gtggtaccaa ttacattagt agtcattcta   3540
ttcttcactg tcccctacag gtaaaaaaca tagcctgaat ttcttaagaa tgtctttgat   3600
gaagcagtaa aaattaatgt tgttaaatct tgacatgtct ctaatattct gaataagtgg   3660
aaagttaacc agaagcgctt ttttttttgt ttttaaagaa tccgtgattt aactatgaac   3720
tgaaaaatca cttttttcac agaacatcat ttttatttaa aagtacaact gggccagcgc   3780
agtggctcac gcctgtaaaa tcccagcact ttgagagacc aaagcaggca gatggcttga   3840
gctccttcag gagttcgaga ccagcctagg caacataacg aaaccctgtc actgtcaaac   3900
atataagaaa attagcctgg cgtggtgcca cacatctgtg gtgccagcta caaaggagcc   3960
tgaggtgaga ggattgcttg agctgagatc atgccaatgc actccagcca agtgacagag   4020
tgaaactcgg tctaaaaaac cagttcaact atcattctca aaaataaatg aagtgagagg   4080
ttgtcacttc aagggaaata cgtatttgtt cccaatgata aaatttaagc tttcctgtgg   4140
actttgaaaa acttgttcct tctactgtag gcttggcagc tattcaatac ttaaaggcgt   4200
gttaaagtaa gattggtggt taaactaaaa gtgatttttg acacaataaa acataaaccg   4260
atatattcca agtaactaat gcatgatatt ataaatgcaa gtatggagca aaagatccat   4320
ttactgtgga agaaagatca atgagtactg atggaataaa tttattaata tgtaaaatgc   4380
caccgtaact aatttaagaa accaccactt gtgaagtttt gatttagtgt taacaaatac   4440
ccacaactgt ctgaaaagtt taaaaataca ccttctacca actacatatt tgcatgaggt   4500
tcggtcatct tattgcttct tttttttctt ttttgagaca gagtctctct ctgtcaccca   4560
ggctggggtg caatggcgag atctcggctc actgcaacct ccacctccca ggctcaagcg   4620
attctcctgc ctcagcctcc caagtaactg ggactacagg catgcaccac cacgcccagc   4680
catttttgt actttcagta gaggcgggtt ttaccatgtt ggtcgggctg gtctcaaact   4740
cctgacctca agtgatccac ccacctcggc ctcccaaaat gctgggatta caggtgtgaa   4800
ccactgcgcc ccaccagctt attgcttttt ttgtttgttt gtttaggcag agtcttgctc   4860
tgtcacccag gctgcagtgc aatagcacca tctcagctct ctgcaacctc cgcctcccaa   4920
gttcaagcgg ttctcctgcc tcagcctcca gaataggtgg gactacaggt gtgtgccatc   4980
atgcccagcc aagttttgt attttttagta gagacggggt ttcgctgtgt tagccaggat   5040
ggtctcgatc tcctgacctt gtgatccgcc cgcctcagcc tcccaaagtg ctgggattac   5100
aggcgtgaga caccgtgccc aacctcttat tgctgcttta aagcaaattg caaagaaagc   5160
tctagagaat ccatttgtct cctattaagc tcaacatgag agactttaaa taatataaat   5220
acatgacgca cttttttactc aacttttttgt tgtagaaaag ttatttttca atgaaaaaat   5280
tctgttaaca atactgttct caaggaatat tttctgttgt tataacctgg gtcatgggtt   5340
actactgata tctagttggt agaggccatg aatactgcta aactctctgc aatgcacaag   5400
acagtcctca caacaaagca ttatctagcc cataatatca acagtggtaa ggctgtgaaa   5460
tctaaactaa aaatagattt tgaaaaaatt tcaattgtat aattctacca cactaaatat   5520
caatataatc aatataaaca catactcttt gagattctca atcatttaag aattatgaga   5580
gtcttaagga acaaagaaaa tacaaataat ttgcttcaat attttagtag gcacaataca   5640
gcttatgatg tgcctaacac tgagcttgat atcttgcaaa gtacttagct agaataacaa   5700
gacaggtttc taaaaagctc accttttgtgt gatatgatga ggtatctcca aggtcacact   5760
gtggaaggaa aaaaaattca taacaataga tgttaacatt tgttaggcct gaagacattt   5820
tttaaaaggg gggcagagga aactctccta gtggccctga aattcaaatc ttctagttca   5880
gaacagtacc ataagggcac tttgtttttca tttctttgtt ttttacaaaa atatgagaac   5940
caaaatgcaa ggaaatatgc cgttagaaga cgcgtttctg ttggtgatta caatatataa   6000
ataataacag atttccttgt tacatgcttt tctacccacg aaacctttcg tcccatgcga   6060
tttattttat gtatttattt atttttttgac ccagagtctg tctctcttgc tcag         6114
```

<210> 9370

6936

```
tgtacaaaaa tcaatgcata tttatgaact ttttttttcaa atatattttc acacatttta      60
tctaaataca taatacagaa gcctgtgtga cttgggcaat gtggccagga gggcctgaga     120
ctaacacatc caccttggca aaaggacata aaatatgtct tatggtcaga aaaatcaaca     180
ttttgtgtat ttacttagtt tatgaaaagt actgaaaatg ctattactag ctgaatttgt     240
gatttccttt tgaaattctg agttatcctt attttttccca ttttgttttt gcaccaagga     300
gactgcagtc aaataaaaca gatactacac gcactcgtcg gggcagccgt actgcagaag     360
cacgttgatg cactcctggc tggaggcctg ccgggcgtag gtcagcgctg tgttcccgtg     420
ggcatctcgg gccatgacgt ccaccccgta ccagatcagg agctgtgcca ggaccacatt     480
ccccttgcgg caggccagat ggagcgccgt gcagccgtct ccctccccac aggtctcgtt     540
cacctcctca cgggagccat gtgccagcag caggatggct gtctgcaggt cctcatcagc     600
ggtggcccgc agcaggtgct ggcccaggga cagctcagtg cagggtagtg gggccagaaa     660
gagcttctcc tcatatttgg aacggatcca ccgttccttc cttccctcg tggactttac     720
tgagggtttt gtctgcccct ggctgctccc ttcccagatg ctgttggcta ggtcattgcc     780
aatagatgac ataaccttcc tgagctcaac tggccagtca tccagctcca gagatcgcac     840
acgggaaagg cgggtgccaa gactgcggtg gattcctgag cattcaatac acatgaggac     900
tcccaagttc aaactggccc acttaggatt ctgggtctca tagtccacac agtgggcgtt     960
cccacgcatg ttttggatcg actgcagggc catggcctcg ctctggctgg tcagctggga    1020
cttgctttta ctgctctcgc atgactgcag gctggccagg atctggctct ggatggcttg    1080
gacccaggca tcccgctcct catacgtcgt ggcttcaaag tgccatgttt ggccagtggc    1140
agacacaatc ataaagttgt tggtgctttt cttctttagg tgtttctttt tattggcatg    1200
aggagagggg ggcgggttga gcttggggct ggtggtgctg gagatactgg ggctgaagca    1260
tatggagtca cccagcccgg tgtccatgtc cttggatagg ccattgcttt tagagctgga    1320
gatgggtgca caggccgatg tggctaggga tggccacttt cctgggactt tgatggtaga    1380
tgtccgaagg tcaatctctt ttttatgaat attcttcata taatcaccta agcttgaata    1440
ataggtgagc acgccattgg aacacagggt gacgtatttc tttttccatg tcttcagcca    1500
tttcccactt cgctttaaga gcatgccctg tttaatgggg atggctctgc cgctcccgat    1560
ggtgtcagca tgattctccg gggctttcct ctctttgtct gggtgactcc ctttctcaga    1620
tgtaaacagg ttggaccagc gcatggaccg cttgcaaacg ggggtgggtg tgttggcagt    1680
gggaggaaca ctgaactgag ggtcctcctg gctggtgctg ggagtcgatg gaatggagga    1740
ggaatagtta tttaaactcc cacctccatt tctgttcttc gtaatgtgca cggtggaaac    1800
ctgtgtggaa cagaaggagg aatggcttca aaaattgggt agtggcttgc agggtcctat    1860
agacagctta caattacctt ttaaaaagat acattttctg ggccaggcat ggtggctcac    1920
acctgtaatc acagcacttt gggaggccaa ggtgggtgga tcacgaggtc aggagttcaa    1980
gaccatcctg gccaacatgg tgaaaccctg tctttacaaa aaaaaaaaaa aaaagaaaag    2040
aaaaaagaaa aaaaaattag ctgggcatgg tgtcacatgc ctgtaattcc agttactcgg    2100
gaggctgagg caggagaatt gcttgaacag ggacctggga ggcagagcct gcagtgagcc    2160
aagatcgcgc gattgcactc cagcctgggc tacagaaaga gagtccatca aaaaaaaaaa    2220
aagatacatt ttctgttgtt tggatagtat atttactcat actagctcac taactaaaca    2280
gagctgcaga tcagttctta ctccagcaca ttcttttac aacacttaag atgactaaat    2340
gcaacatgaa atggggaaga tttaaaaaaa gatggctttg acttcagcat gaaacagata    2400
caagtgtacg atgaaaatag aacctcaata aaagtgccac ttaccgcaaa tgagtgtaac    2460
tgttcatcag gtatgctcaa agatctatct gcatctctat aaaataagaa agtgcattac    2520
ttcaaaaact gttaatatct tagtataata tttgttgagt aaaatacttc ctcctgtgtg    2580
ctttggtgtt tactttacca aagcagtttt tacaaattct tctcctggat cctgacttgc    2640
agagggtttc ctgacttctt ctttctcagc acatcatggc ctgtaccgtg aagcctttta    2700
tatgataacc agtcagaaat gcccatgaat attgactctc cctaacaggc catggcaata    2760
aaccaaacat attttcactc ttctaaccac acattgaaac acaagaatgt tctacaaagc    2820
agtagtagta aactttaata aatgtaaatg tgattcagat ttcctagctt cctttctctt    2880
tagttctctg tagtatactc tcatgatgtt tttatgtatt ttctgttgtc tgaatgacaa    2940
actcatctgc ctttttaaga ggccagtctt tgaggaactt aaactttgt aaaactaatg    3000
cattgtgcct gtgtataaac cagtggttct ccaaatgtgc tctgtggacc tctcgggatc    3060
ccgaagaccc cttccagaag gcctaagagg tcataactgt tctttttttt tttttttttt    3120
ttttttttga gaccaagttt tactcttgtt gcccaggctg gagtgcaatg gtgtgatctc    3180
ggctcatggc aaccttcgcc tcccaggttc aagtgattct cctaccccag cctcccaagt    3240
agcagggatt acaggcacct gccaccactc ctggctaagt tttgtatttt tagtagagat    3300
gtggtttcac catgttggcc aggctggtct tgaactccta acctcaggcg atccacttgc    3360
```

```
ctcggcctcc aaagtgctgg gattacaggc ctgagctact gtgcctggcc aacactgttc  3420
tgaatcatac taattaaacc tgagaaagct gatgaaaaat tttaaaaatt tgtgaaagta  3480
atacaaagtc attgcctgct ttttcgttga cacttgccat gattgtataa aagcaaaagt  3540
aggtacaatg gctggtttct cagcataaat caaggcagtg gtaccaatta cattagtagt  3600
ccctttcact gtccctaca ggtaaaaaac atagcctgaa tttcttaaga acgtctttga  3660
tgaagcaata aaaattaatg ttgttaaatc ttgacatgtc tctaatattc tgaataagtg  3720
gaaagttaat gagaagtgct ttttttttttg ttttaaaga atccgtgatt taactgtgaa  3780
ctgaaaaatc acttttttca cagaacatca tttttattta aaagtacaac tgggccagcg  3840
cagtggctca cgcctgtaaa atcccagcac tttgagaggc caaagcaggc agatggcctg  3900
agctccttca ggagttcggg accagcctag gcaacgtaac gaaactgtgt ctctatcaaa  3960
catataagaa aattagcctg gcgtggtgcc acacatctgt ggtcccagct acacaggagc  4020
ctgaggtgag aggattgctt gagctgagat catgccaatg cactccagcc aagtgacaga  4080
gtgaaactcg gtctaaaaaa ccagttcaac tatcattctc aaaaataaat gaagtgagag  4140
gttgtcactt caagggaaat acgtatttgt tcccaatgat aaaatttaag ctttcctgtg  4200
gactttgaaa aacttgttcc ttctactgta ggcttggcag cttttcaata cttaaaggcg  4260
tgttaaagta agattggtgg ttaaactaaa agtgattttt gacacaataa aacataagcc  4320
aatatattcc aagtaactaa tgcatgatat tataaatgca agtatggagc aaaagatcca  4380
tttactgtgc aagaaagatc aatgagtact gatggaataa atttattaat atgtaaaatg  4440
ccaccgtaac taatttaaga aaccaccact tgtgaagttt tgatttagtg ttttaacaaa  4500
tacccacaac tgtctgaaaa cttttaaaaat acaccttcta ccaactacat atttgcatga  4560
ggttaggtca tcttattgct tcttttttctc ttttttttgag acagagtctc tctctgtcac  4620
ccaggctggg gtgcaatggc gagatctcgg ctcactgcaa cctccacctc ccaggctcaa  4680
gcgattctcc tgcctcagcc tcccaagtaa ctgggactac aggcatgcac taccatgccc  4740
agccactttt tgtactttca gtagaggcgg gtttttaccat gttggtcggg ctggtctcaa  4800
actcctgacc tcaagtgatc cacccacctc agcctcccaa aatgctggga ttacaggtgt  4860
gaaccactgc gccccaccag cttattgctt ttttttgtttg tttgtttaga cagagtcttg  4920
ctctgtcacc caggctgcag tgcaatggca caatctcagc tctctgcaac ctccgcctcc  4980
caagttcaag cggttctcct gcctcagcct ccagaatagg tgggactaca ggtgcgtgcc  5040
accatgccca gctaagtttt tgtattttta gtagagacgg ggtttcgccg tgttagccag  5100
aatggtctcg atctcctgac cttgtgatcc gcccgcctca gcctcccaaa gtgctgggat  5160
tacaggcgtg agccactgtg cccagcctca tattgcttct ttgaagcaaa ttgcaaagaa  5220
agctctagag aatccatttg tctcctatta agctcaacat gagagacttt aaataatata  5280
aacaaatgac acactttta ctcaactttt tgttgtagaa aagttttttt tcaatgaaaa  5340
acttctgtta acaatactgt tctcaaggaa tattttctgt ttttataacc tgggtcatgg  5400
gttactactg acatctagtt ggtagaggcc atgaatactg ctaaactctc tgcaatgcac  5460
aagacagtcc ttacaacaaa gcattatcta gcccataata tcaacagtgg taaggctgtg  5520
aaatctaaac taaaaataga ttttgaaaaa atttcaattg tataattcta ccacactaaa  5580
tatcaatata atcaatataa gcatatactc tttgagattc tcaatcattt aagaattatg  5640
agagtcttaa ggaacaaaga aaatacaaat aatttgcttc gatattttag taggcacaat  5700
acagcttatg atgtctagag ctgtgaccta acactgagct tgatatcttg caaagtaatt  5760
agctagaata acaagacagg tttctaaaaa gctcacctt gtgtgatatg atgaggtatc  5820
tccaaggtca cactgtggaa ggaaaaaaaa ttcataacaa tagatgttat catttgttag  5880
gcctgaagac attttttaaa aggggggcag aggaaactct cctagcggcc ctgaaattca  5940
aatcttctag ttcagaacag taccataagg gcactttgtt ttcatttctt tgtttttttac  6000
aaaaatatga gaaccaaaat gcaaggaaat atgccgttag aagacgcgtt tctgttggtg  6060
attacaatat ataaataata acagatttcc ctgttatatg cttttctacc gatgaaacct  6120
ttcgtcccat gcgatttatt ttatgtattt atttattttt tgacccagag tctgtctctc  6180
ttgctcagac tggactgcag tggtgccatc ttgactcctc acaacctcca ccacccaggt  6240
tcaagcgatt ctcacgcctc agcctcccaa gaagctggga ctacaagttt gcgccactat  6300
gcccagataa ttttttttgg gggggtggg tgggtggagt ttcgctcttg ttgcccaggc  6360
tggagtgcaa tggtgtgatc tcggctcacc acaacctctg cctcccgggt tcaagagatt  6420
ctcctgcctc agcctcccaa gtggctggga ttacaggcat gtaccaccac gcccagctaa  6480
ttttgtagag tgaggctcaa aacaactgag ggaaggtaaa tctcaattct actaataggt  6540
ctacacaata ttagcacttt ttaaaaagcc tgtaacatta gcatgtgaga tggatatgtc  6600
tatagtgctt caagtagttt tcatctctga aataatttta aaatcacaga atttaaagtt  6660
acatgctgga aaggaccaat gaccttatgt gacatttaat tcaacactcg ttttacagat  6720
cagggaaaca aaccttaaaa ctgacttgcc caaggtccca ccaaataggа gcagtttctc  6780
gtcctaaact caaattaagc agtggctctc aaactttgct gcacattaaa atcgcctgag  6840
aagctttaat atctgcctca tcttccacat gagacatttt aatttaatta gtattgggta  6900
tggctttggg catcaaggtt cttggtaaac gtttcccagg tgatttcaat cagcagcaaa  6960
gtttggaatg attgagctgg ggtgaaaatc agaatcttct gggatgcttt tcttcacaga  7020
```

6938

```
aagatgcctc acatccatcc tgattttcct aaaaggcttc tcagtgccta cagatagagg    7080
gaaagtggag atgggaagat acatgtattt gcagacttgc attttgaaaa aaaccttgca    7140
taagtgatct cagcgagtgc cacctatccc actgacaaca gtgcactact gattcatgat    7200
aaaacatttt tcaaaatatc ttcttgaagc caatttgccc tattaatttg ttcaataact    7260
ttatttcacc aatagtgaat acaccaaatg attatttctc aaacttgctg gtggcaaatt    7320
aaaacttact atactctcaa aagtagactt ctaaaaagta gaataatgag gaaaaaagca    7380
cgaaattagt ttcagcaaaa ttaatcttca aagctgcttt tgaattatat gctaacttat    7440
caaaatcttt ggaactcaga agaagccagg gactctagtc aaagtaattt ttgtgtatgt    7500
gtgctcaaag atttaagaga cttggctgac tacagacatt tagtgattac tcaataggtc    7560
ccaaagctca ggacttgaga cagagtttga gtccagtttt tgttcgaaac acaatttcct    7620
ctcaactatt gttaaaaggg agggaggaaa gtgacattat tatgagtgta aacttgccac    7680
ttttaattga agtaaaagtt attgacaatt gaattagcta aaaaggctag tgcatctgaa    7740
acaaaattgt ttataagcta gttatgttta cagaatgaaa agttaaatta aagataaaga    7800
cattaatatt ctaaattagg actttccaaa ctgtgttcta aaaatcaaga ctaataaccc    7860
aaggagatga gaataatgta cactggacgg cccctgtgga gctggtggtg gtgttggttg    7920
ttgttccttt taaaataaac ttcatctcag ggtgctctca aagcgcatct ttgtggccca    7980
cgaggtgctc atgcacaatg ggagaaattc aaatgcagat acactgtggt gccagaagaa    8040
gaaaagctgt tccttcttcc aaggataatg tccaaagtag tgcacactga tttgggccta    8100
tgatgcattg aaaaactaag tttccacaaa aaacattcaa taaagggaac ctatccttct    8160
cactgtgttc aacattgtct aaaggcataa aggcatcaaa aagatacact gtttctgggt    8220
ttgcttcttt gctaactgat tttttccttcc accacgacgt ctaagattaa aagagaaact    8280
gatacttaat attgagaatc tggatatcaa tatatggttg actccaattt cttaagctga    8340
ttgctgaaga ggacaaccaa atggctgaaa taatttccga ataaaggaat ctgtccctcg    8400
gcagcatagt tgtactcacg atattattgt cattgtaaga taatgctggc tggctgtgct    8460
gtcatcaagg aatattgtcg aacacgagct gtattgttga ctgaaacgct cagtagatac    8520
ctgaagggga agggaagtgt aagtcaaatt tatcaaagtg tatttttttc tcagttaaaa    8580
tgtcaaatga caaagcacta agatatgtct tacactccat gaactgcctg agtgtggtat    8640
catgtgcact ctatagaaaa cccattggag gctctcaact tccagagatg atgtttaaga    8700
tatgggttat aaaatgctgc ccttaatatg gtacctgtca tcaaacctaa caaggatttt    8760
atgaattacc gttaaaaata atgggaaaag tcggcttcgc cgggcgcggt ggctcacacc    8820
tgtaatccta gcactttggg aggtggaggc gggcagatca cgaggtcaag agatcgagac    8880
catcctggct aacatggtga aaccccgtct gtactaaaaa atacaaaaaa aaaaaagtac    8940
ctgggtgtgg tggcgggcac ctgtagtccc agctgctcgg gaggctgagg caggagaatg    9000
gcgtgaaccc gggaggcgga ggttgcagtg agccgagatc gcgccactgc actccagcct    9060
gggcgacaga gcaagactcc atctcaaaaa aaaaaaaaa aaaaagact tagtatattt    9120
tt                                                                  9122
                                                                    9122
```

<210> 9371
<211> 23934
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (22909)
<223> n equals a,t,g, or c

<400> 9371
```
tgtacaaaaa tcaatgcata tttatgaact ttatttcaaa tatattttca cacattttat     60
ctaaatacat aatacagaag cctgtgtgac ttgggcaatg tggccaggag ggcctgagac    120
taacaaatcc accttggcaa aaggacataa aatacgtctt atggtcagaa aaatcaacat    180
tttgtgtatt tacttagttt acgaaaagta ctgaaaatgc tattattagc tgaatttgtg    240
atttcctttt gaaattctga gttatcctta ttttcccat tttgtttttg caccaaggag    300
actgcagtca aataaaacag atactacaca cacttgtcgg ggcagccgta ctgcagaagc    360
acgttgatgc actcctggct ggaggcctgc cgggcgtagg tcagcgctgt gttcccgtgg    420
gcatctcggg ccatgacgtc caccccgtac cagatcagga gctgcgccag gaccacattc    480
cccttgcggc aggccagatg gagcgccgtg cagccgtctc cctccccaca ggtctcgttc    540
acctcctcac gggagccatg tgccagcagc aggatggctg tctgcaggtc ctcatcagcg    600
gtggcccgca gcagctgctg gcccagggac agctcagtgc agggtagtgg ggccagaaag    660
agcttctcct catatttgga acggatccac cgttccttct cttccctcgt ggactttct    720
```

                                        6939

```
gagggttttg tctgcccctg gctgctccct tcccagatgc tgttggctag gtcattgcca      780
atagatgaca taaccttcct gagctcaact ggccagtcat ccagctccag agatcgcaca      840
cgggaaaggc gggtgccaag actgcggtgg attcctgagc attcaataca catgaggact      900
cccaagttca aactggccca cttaggattc tgggtctcac agtccacaca gtgggcgttc      960
ccacgcatgt tttggatcga ctgcagggcc atggccttgc tctggctggt cagctgggac     1020
ttgctttttac tgctctcgca tgactgcagg ctggccagga tctggctctg gatggcttgg     1080
acccaggcat cccgctcctc atacgtcgtg gcttcaaagt gccacgtttg gccagtggca     1140
gacacaatca taaagttgtt ggtgcttttc ttctttaggt gtttcttttt attggcatga     1200
ggagagggg gcgggttgag cttggggctg gtggtgctgg agatactggg gctgaagcat     1260
atggagtcac ccagcccggt gtccatgtcc ttggataggc cattgctttt agaggtggag     1320
atgggtgtgc aggccgatgt ggctagggat ggccactttc ctgggacttt gatggtagat     1380
gtctgaaggt caatctcttt tttatgaata ttcttcatat aatcacctaa gcttgaataa     1440
taggtgagca cgccattgga acacagggtg acgtatttct ttttccatgt cttcagccat     1500
ttcccacttc gctttaagag catgccctgt ttaatgggga tggctctgcc gctcccgatg     1560
gtgtcagcat gattctccgg ggctttcctc tctttgtctg ggtcactccc tttctcagat     1620
gtaaacaggt tggaccagcg catggaccgc ttgcaaacgg gggtgggtgt gttggcagtg     1680
ggaggaacac tgaactgagg gtcctcctgg ctggtgctgg gagtcgatgg aatggaggag     1740
gaatagttat ttaaactccc acctccattt cttttcttca taatgtgcac ggtggaaacc     1800
tgtgtggaac agaaggagga atggcttcaa aaattgggta gtggcttgca gggtcctata     1860
gacagctcac aattaccttt taaaaagata cattttctgg gccaggcatg gtggctcaca     1920
cctgtaatca cagcactttg ggaggccaac gtgggtggat cacgaggtca ggagttcaag     1980
accatcctgg ccaacatggt gaaaccctgt ctttacaaaa aaaaaaaag aaaaaaaat     2040
tagctgggca tggtggcaca tgcctgtaat tccagttact caagaggctg aggcaggaga     2100
attgcttgaa cagggacctg ggaggcagag cctgcagtga gccaagatcg cgcgattgca     2160
ctccagcctg ggctacagaa agagagtcca taaaaaaaaa aaaaaaaaa aaaaagatac     2220
attttctgtt gtttggatag tatatttact catactagct cactaactaa acagagctgc     2280
agatcagttc ttactccagc acattctttt tacaacactt aagatgacta aatgcaacat     2340
gaaatgggga agatttaaaa aaagatggct ttgacttcag catgaaacag atacaagtgt     2400
acgatgaaaa tacaacctca ataaagtgc cacttaccgc aaatgagtgt aactgttcat     2460
caggtatgct caaagatcta tctgcatctc tataaaataa gaaagcgcat tacttcaaaa     2520
actgttaata tcttagtata atatttgttt agtaaaatac tgcctcctgt gtgctttggt     2580
gtttacttta ccaaagcagt ttttacgaat tcttctcttg gatcctgact tgcagagggt     2640
ttcctgactt cttctttctc agcacatcat ggcctgtacc gtgaagtctt ttatatgata     2700
accagtcaga aatgcccgtg agtattgact ctccctaaca ggccatggca ataaaccaaa     2760
catattttca ctcttctaac cacacattga aacacaagaa tgttctacaa agcagttgta     2820
gtaaacttta ataaatgtaa atgtgattca gatttcctag cttcctttct ctttagttct     2880
ctgtagtata ctctcatgat gtatttatgt actttctgtt gtttgaatga caaactcatc     2940
tgcccttta agacgccagt cttttgatgaa ctttaaactt tgtaaaacta atgcattggg     3000
cctgtgtata aaccagtggt tcttccaatg tgctctgtgg gaccactcgg gatcccgaag     3060
accccttcca gaaggcctaa gaggtcataa ctgttctttt ttttttttt tttttttttt     3120
tttgagacca agttttactc ttgttgccca ggctggagtg caatggtgtg atctcggctc     3180
atggcaacct tcgcctccca ggttcaagtg attctcctac cccagcctcc caagtagcag     3240
ggattacagg cacctgccac cactcctggc taagttttgt attttttagta gagatgtggt     3300
ttcaccatgt tggccaggct ggtcttgaac tcctaacctc aggtgatccg cttgcctcgg     3360
cctcccaaag tgctgggatt acaggcctga gccactgtgc ctggccaaca ctgttctgaa     3420
tcatactaat taaacctgag aaagctgatg aaaaatttta aaaatttgtg aaagtaatac     3480
aaagtcattg cctgcttttt cattgacact tgccatgatt atataaaagc aaaagtgggt     3540
acaatggctg gtttctcagc ataaatcaag gcagtggtac caattacatt agtagtcatt     3600
ctattcttca ctgtcccta caggtaaaaa acatagcctg aatttcttaa gaatgtcttt     3660
gatgaagcag taaaaattaa tgttgttaaa tcttgacatg tctctaatat tctgaataag     3720
tggaaagtta accagaagcg ctttttttttt tttgttttt aaagaatccg tgatttaact     3780
gtgaactgaa aaatcacttt tttcacagaa catcattttt atttaaaagt acaactgggc     3840
cagcgcagtg gctcacgcct gtaaatccc agcactttga gaggccaaag caggcagatg     3900
gcttgagctc cttcaggagt tcgagaccag cctaggcaac ataacgaaac cctgtcactg     3960
tcaaacatat aagaaaatta gcctggcgtg gtgccacaca tctgtggtcc cagctacaaa     4020
ggagcctgag gtgagaggat tgcttgagct gagatcatgc caatgcactc cagccaagtg     4080
acagagtgaa actcggtcta aaaaccagt tcaactatca ttctcaaaaa taaatgaagt     4140
gagaggttgt cacttcaagg gaaatacgta tttgttccca atgataaaat ttaagctttc     4200
ctgtggactt tgaaaaactt gttccttcta ctgtaggctt ggcagctttt caatacttaa     4260
aggcgtgtta aagaaagatt ggtggttaaa ctaaaagtga tttttgacac aataaaacat     4320
aaaccaatat attccaagta actaatgcat gatattataa atgcaagtat ggagcaaaag     4380
```

6940

```
atccatttac tgtgcaagaa agatcaatga gtactgatgg aataaattta ttaatatgta    4440
aaatgccacc gtaactaatt taagaaacca ccacttgtga agttttgatt tagtgttaac    4500
aaatacccac aactgtctga aaactttaaa aatacacctt ctaccaacta catatttgca    4560
tgaggttagg tcatcttatt gcttcttttt ttctttttt gagacagagt cgctctctgt      4620
cacccaggct ggggtgcaat ggcgagatct cggctcactg caacctccac ctcccaggct    4680
caagcgattc tcctgcctca gcctcccaag taactgggac tacaggcatg caccaccacg    4740
cccagccatt ttttgtactt tcagtagagg cgggttttac catgttggtc gggctggtct    4800
caaactcctg acctcaagtg atccacccac ctcggcctcc caaaatgctg ggattacagg    4860
tgtgaaccac tgcgccccac cagcttattg ctttttttgt ttgtttgttt gtttaggcag    4920
agtcttgctc tgtcacccag gctgcagtgc aatggcacca tctcagctct ctgcaacctc    4980
cgcctcccaa gttcaagcgg ttctcctgcc tcagcctcca gaataggtgg gactacaggt    5040
gcgtgccatc atgcccagcc aagttttttgt attttttagta gagacggggc ttcgctgtgt    5100
tagccaggat ggtctcgatc tcctgacctt gtgatccgcc cgcctcagcc tcccaaagtg    5160
ctgggattac aggcgtgagc caccgtgccc aacctcttat tgctgcttta aagcaaattg    5220
caaagaaagc tctagagaat ccatttgtct cctattaagc tcaacatgag agactttaaa    5280
taatataaat acatgacgca ctttttactc aactttttgt tgtagaaaag ttattttttca    5340
atgaaaaaat tctgttaaca atactgttct caaggaatat tttctgttgt tataacctgg    5400
gtcatgggtt actactgata tctagttggt agaggccatg aatactgcta aactctctgc    5460
aatgcacaag acagtcctca caacaaagca ttatctagcc cataatatca acagtggtaa    5520
ggctgtgaaa tcgaaactaa aaatagattt tgaaaaaatt tcaattgtat aattctacca    5580
cactaaatat caatataatc aatataaaca catactcttt gagattctca atcatttaag    5640
aattatgaga gtcttaagga acaaagaaaa tacaaataat ttgcttcaat attttagtag    5700
gcacaataca gcttatgatg tctagagctg tgacctaaca ctgagcttga tatcttgcaa    5760
agtacttagc tagaataaca agacaggttt ctaaaaagct cacctttgtg tgatatgatg    5820
aggtatctcc aaggtcacac tgtggaagga aaaaaattca taacaataga tgttaacatt    5880
tgttaggcct gaagacattt tttaaaaggg gggcagagga aactctccta gtggccctga    5940
aattcaaatc ttctagttca gaacagtacc ataagggcac tttgttttca tttctttgtt    6000
ttttacaaaa atatgagaac caaaatgcaa ggaaatatgc cgttagaaga cgcgtttctg    6060
ttggtgatta caatatataa ataataacag atttccttgt tatatgcttt tctacccacg    6120
aaacctttcg tcccatgcga tttattttat gtatttattt attttttgac ccagagtctg    6180
tctctcttgc tcagactgga ttgcagtggt gccatcttga ctcctcacaa cctccaccac    6240
ccaggttcaa gcgattctca tgcctcagcc tcccaagaag ctgggactac aagtttgtgc    6300
cactatgccc agataatgtt ttttgggggg gtggggtgga tggagtttcg ctcttgttgc    6360
ccaggctgga gtgcaatggt gtgatctcgg ctcaccacaa cctctgcctc ccaggttcaa    6420
gagattctcc tgcctcagcc tcccaagtgg ctgggattac aggcatgtgc caccacaccc    6480
agctaatttt gtagagtgag gctcaaaaca actgagggaa ggcaaatctc aattctacta    6540
ataggtctac acaatattag cactttttaa aaagcctgta acattagcag gtaagatgga    6600
tatgtctata gtgcttcaag tagttttcat ctctgaaata atttaaaat cacagaattt     6660
aaagttacat gctggaaagg accaatgacc ttatgtgaca tttaattcaa cactcgtttt    6720
acagatcagg gaaacagacc ttaaaactga cttgcccaag gtcccaccaa attggagcag    6780
tttctcgtcc taaactcaaa ttaagcagtg gctgtcaaac tttgctgcac attaaaatcg    6840
cctgagaagc tttaatatct gcctcatctt ccacatgaga cattttaatt taattagtat    6900
tgggtatggc tttgggcatc aaggttcttg gtaaacattt cccaggtgat ttcaatcagc    6960
agcaaagttt ggaatgattg agttggggtg aaaatcagaa tcttctggga tgcttttctt    7020
cacagaaaga tgcctcacat ccatcccgat tttcctaaaa ggcttctcag tgcctagaga    7080
tagagggaaa gtggagatgg gaagatacat gtgtttgcag acttgtattt tgaaaaaaac    7140
cttgcataag tgatctcagc gagttccacc tatcccactg acaacagtgc actactgatt    7200
catgataaaa cattttttcaa aatatcttct tgaagccaat ttgccctatt aatttgttca    7260
ataactttat ttcaccaata gtgaatacac caaatgatca tttctcaaac ttgctggtgg    7320
caaattaaaa cttactatac tctcaaaagt agacttctaa aaagtagaat aatgaggaaa    7380
aaagcacgaa atttgtttca gcaaaattaa tcttcaaagc tgcttttgaa ttatatgcta    7440
acatatcaaa atctttggaa ctcagaagaa gccagggact ctagtcaaag taattttttgt    7500
gtatgtgtgc tcagagattt aagagactta gctgactaca gacatttagt gattactcaa    7560
taggtcccaa agctcaggac ttgagacaga gtttgagtcc agttttttgtt cgaaacacaa    7620
tttcctctca actattgtta aaagggaggg aggaaagtga cattattatg agtgtaaact    7680
ttccactttt aattgaagta aaagttattg acaattgaat tagttaaaaa ggctagtgca    7740
tttgaaacaa aattgtttat aagctagtta tgtgtacaga atgaaaagtt aaattaaaga    7800
taaagacatt aatattctaa attagcactt tccaaactgt gttctaaaaa tcaagactaa    7860
taacccaaga agatgagaat aatgtacact ggacagcccc tgtggagctg gtggtggtgt    7920
tggttgttgt tccttttaaa ataaacttca tctcagggtg ctctcaaagc gcatctttgt    7980
ggcccacgag gtgctcatgc acaatgggag aaattcaaat gcagatacac tgtggtgcca    8040
```

                                      6941

```
gaagaagaaa agctgttcct tcttccaagg ataatgtcca aagtagtgca cactgattta   8100
ggcctatgat gcattgaaaa actaagtttc cacaaaaaac attcaataaa gggaacctat   8160
ccttctcact gtgttcaaca ttgtctaaag gcataaaggc atcaaaaaga tacactgttt   8220
ctgggattgc ttctttgcta actgatttt ccttccacca cgacgtctaa gattaaaaga   8280
gaaactgata cttaatattc agaatctgga tatcaatata tggttgactc caatttctta   8340
aactgattgc tgaaaaggac aaccaaatga ctgaaataat tttagaataa aggaatctgt   8400
ccctcggcag catagttgta ctcacgatat tattgtcatt gtaagataat gctggatggc   8460
tgtgctgtca tcaaggaata ttgtcgaaca caagctgtat tgttgactga aacgcacagt   8520
agatacctga aggggaaggg aagtgtaagt caaacttatc aaagtgtatt attttctcag   8580
ttaaaatgtc aaatgacaaa gcactaagat atgtcttaca ctccatgaaa tgcctgagtg   8640
tggtatcatg tgcactctat agaaaaccca ttggaggctc tcaacttcca gagatgatgt   8700
ttaagatatg ggttataaaa tgctgccctt aatatggtac ctgtcatcaa acctaacaag   8760
gattttatga attaccgtta aaaataatgg gaaaagtcgg cttcgcgggg cacggtggct   8820
cacacctgta atcctagcac tttgggaggt ggaggcgggc ggatcacgag gtcaagagat   8880
cgagaccatc ctggctaaca tggtgaaacc ccgtctctac taaaaataca aaaaattagc   8940
cgggcgtggt agcaggcccc tgtagtccca gctacttgag aggctgagat ggaagtattg   9000
cttgagccag gaaggtcaag gctgcagtga gctttgatca tgccactgca ctccagcctg   9060
ggcaacagag caataccctg tctcaaaaaa gaaaaaaatg gctttgtttc actgtgccct   9120
taagtgattc tgtagctggg ttatagaatt cagcatcaat tagttatttt ccaaagctca   9180
ttgaagacat ggcttcattg gcctgtatct agtgttgcta atgaaattaa tgaggaaaat   9240
ctgatcctta tttctttgaa tttaaacaaa tttttttttt ttttttttt atgctttggt   9300
agctttaac attttttct ctattttcat agctttcttc acttttgggg aattttttagc   9360
tattaattaa atactacttt ctcccattct ctctctgcct ttggaattcc tactagacga   9420
aagcttgaat gcggtcaccc agactttctg gctcttaacc ttttcacctt tttctctttg   9480
ttctttaacc tgcaagactc cctcaactga atgctccatt ttgctaatgg acccttcagt   9540
gtgtctctgc tgttactcag cctatctttt gaggtttttc tttcaataac ttgggcttta   9600
attttgaga tctctaattg gttcttttc ataattgctt ggtttattt tcccctgttt   9660
tgctgaaggt attaaatgta cttgctttaa ttgacctttg gttgtagaga agattttca   9720
tttgctctat ttgttatttc tcttttcatag cagtgggctt cctcagacat ctggcacttc   9780
ttcaatgcac actagatttc tggtttccaa ttctccacct gagtctcagg attctgcagc   9840
attcccaggt gggtgcagac tcaggttacc tgggccttgg cttctcccat ggcttcttaa   9900
gaacttcctt gtttatttct gtgatcccaa gcactcccct ttatgacttc aagcccaatt   9960
gtatagtcag taatttaatt tctctatctg ttctatcatt tataagggca cagcatggag  10020
gggagggcct ttcagatatt tttcttgccc catcttaaat ccctaaatta cacttaaaaa  10080
aataccacca aagcttttgt cttttattta ggaagaatag agtactcaga catgagtttg  10140
gagtaggcgg gtgtatgtgt gtatgtgtgc ctatgcagtt taaacctgtt ctgtaatgta  10200
ttgcaataaa tgtttcagtg tcggtacagt gaacaattca acttcataat aggccaatct  10260
ggaatctccc agaaaaattt actttgggtg ttagtgcttt ttttttttt aatcattaat  10320
atctatagga agacctagta ggagtggctg acaaagttta ataaatctca tgataaaatg  10380
cttgtttttg atgtgaatgt tgttcctcag tccatcctaa aatgaaattc acagggttgg  10440
gttcgatgtc ttcttccaca cctctcatta caatctgcca taggagtgca gaccgccccc  10500
atctgaggcc tggatttaat gctcaaacaa gacagatgcc agcaggaaat atttgccctg  10560
ccttcgctgt aaatcttgag tccttgtcca tgatatccta aaaggccacc agatggaaat  10620
gtgatgccgt gaaaagagat gcactaccct ttgcaaaggg ggattgaccc tgctgctctc  10680
tcaaaagaaa ttgtccttat tcaatgtaaa acaaggtttt agaaattttt ctttgttgaa  10740
tgtagaataa agagggcatt acatgaatgc ctatgcattt cagctttgga gaggaatcct  10800
tacatccatt ctgacagcat ggagataaaa agtctgtctt tctgtattca tgtttttgttg  10860
tcatttgctt tcttttctcc cttcttggtc tgtgtgtacc acatcctctc tatgtcttct  10920
ctttctttct tttttttatt tttgagacgg agtctcgctc tgtcgcccag actggagtgc  10980
agtggcgcga tctcggctca ctgcaagctc cgcctcccgg gttcacgcca ttctcctgac  11040
tcagcctcct gagtagctgg gactacaggc gcccaccacc gtgcccggct aacttttgt   11100
gtttttagta gagacggggt ttcaccgtgt tagccaggat ggtctcgatc tcctcacctc  11160
gcgatctgcc tgcctcagcc tcccaaagta ctgggattac aggcgtgagc cacggcgccc  11220
agcccttcta ttatttattt actacgataa aatgtaatgt attaaataat cctgctacaa  11280
gagcatttta ttgcagtgaa tacaagacta atgcatttac taaattacta atcctaaatg  11340
tattatttca ggtgatattg ttacaaaga agtgtttcag attcagaggc tctgtgtgtc  11400
agggctgcta ggccaccaac aagtgaggaa gccataggtt tctctagtcc tattttctta  11460
tgtggaggat aaaaagagta tcacttacat attctctcac accctgaaaa caaatgacaa  11520
cttaaaaaat ctaactttca cttcatgttt aaataagact gccaagacat gactcaaatg  11580
agactctcgg agaatacttt gcattcactt caaaacttga tcaattgcat tctataaatc  11640
atctgacctg cacctagcca tttttcctgct ctacccctgc tctctgccta gaatactgct  11700
```

```
tttctctttc cttgcttcag caagctcgac tccatctacc ctcttggatc tctttgtcgg   11760
cagccacacc aaaaaatgta tttttataca ctaattagtt gaattcacca ctgcttacaa   11820
gatgctaatt cctgcagagt attccccttg tgagaaagta tgcctctcca taagagtaag   11880
ggagggccct tactcttcct acctccagct gctgagcata gaattttgag taaatccaaa   11940
acttcgacaa gtgtttgaca attcagttat catttggaag gtaagtctta ctacatttaa   12000
ttacagcaaa aacactacta acagtttact ctttataggt attatttaag gtagtcacaa   12060
aatagaaaca aacactctaa cgtcaggcag cataaatgag agtatgaaat tttacaatat   12120
ttaacaagaa atggaagggg ttacttagta gttttaaggt ttaatgacaa aaactagaaa   12180
ataatcgtac ctagtaattt agtaagtcaa aaccaaagcc ttaccatcaa aggtgcagta   12240
cccattggat gcggatgccc acgcactgac ttcttctgct gtacctgctg cctctcattt   12300
taacccatta aaaatactaa agttgttttc cttgtagaca tctttcacct ccttggttag   12360
gtctattccc aagtatttta ttttagttta gtttagtttt gcagctatca gaaaaggggt   12420
tgagttcttg gtttgattct aagcttggtc gcttctgggg tataacagag ctactgattt   12480
gtgtacatta attttgtctc ctgaaacttt gctgaattca tttatcagtt ctaggagctt   12540
tttggaggag tctttagggt ttcctaggta tatgatcata tcatcatcaa acagcaacag   12600
tttgacttcc tctttactga tctgcatgcc tttttattgtt ttctcttgtg tgattgctct   12660
ggctaggcct tccagtagta tgttgaatac aagtggtgag agtgggcatc cttgtcttgt   12720
tccagttctc gggggggaatg ctttcaactt ttccccccttt cagtatcatg ttggttgtgg   12780
gtttgtcata gatggctttt attatattga gctgtgaccc ttgtatgctg attttgctga   12840
gggtttttaat cataaaagga tgctgcattt tgtcaaatgc tttttctgca tctgtttaga   12900
tgatcatgtg atttttgtt tttaattctg tttatgtggt gtatcacatt tattgacttg   12960
tgtatgttaa tccatccctg catccctggt atgaaaccca tttgatcatg gtggattatc   13020
ttttttttt ttttgagatg gagtctcgct ctgttgccca ggctggaata tgcagtgtgg   13080
tgatcttggc tcactgcaac ctctgcctcc gaggttcaag cgattctcct gcctcagcca   13140
cctgagtaga tgggattaca ggtgagcgcc accacacccg gctaactttt gtattttag   13200
tagagatggg atttcaccat gttggccagg ctggtctcga actcctgacc tcatgatccg   13260
tccgcctcag cctcccaaag tgctgggatt acaggtgtga gccaccgtgc ctggcccgat   13320
tatttttga tatgccgttg ggaactacaa aacgttgctg aatgaagtca tggacacaaa   13380
caaatggaaa gacaccccat gctcatgaat gggtagaatg aatattgtga aaatgaccat   13440
actgccaaaa gcaatctaca aattcaatgc aactcccatc aaaataccac catccttctt   13500
cacagaacta gaaaaaacaa tcctgaaatt tatatggacc aaacaagaac cggcacagcc   13560
aaaacaaaac taagcaaaaa caacaaatct ggaggcatga cattacctga tttcaaacta   13620
tactataagg ccatagtcgc caaaatagca tggtactgat ataaaaatag gcacatacac   13680
caatggaaca gaatagagaa cccagaaata aactcaaata cctatagcca actgattttc   13740
aacaaagcca cctaaaacat aaagtgaaga aggtaaaccc tattcaacaa atggtgctgg   13800
gataattggc aagccacatg cgggagaatg aaactggatc ctcaactctc agcttacaca   13860
aaaatcaact caagatggat caaggacata aatctatgac ctgaaaccat aaaagttcta   13920
gaagataaca ttggaaaaac ccgtctagac gctggcttag gcaaagactt catgaccaag   13980
aacacaaaag caaatgcaac agaaacaaat aggtgagact taactaaaga gcttctgcac   14040
aggaaaagga acaatcagca gagtatacag acaaccacag agtgggagga aatcttcaca   14100
gtctatacat ctgacaaagg gctattatcc agaatctatg aggaactcaa acaaattaca   14160
attacaaaaa tatggaacca gctcaaatgc ccgtcaatca atgagtggat aaagaaaccg   14220
tgatatacat acatatatat atatatatga ggaataccac ctcagccata ataaggaata   14280
aattcatggc attcccagca acctggatgg aagtaagact attattctaa gtgaaataac   14340
tcagcatgga aaaccaaata tcatgttctc tttcatacgt gggagctgag ctatgaggat   14400
gcaaagccat aagaatgata caatggactt tggggacttg ggggaaaggc tgggaggagg   14460
gtgagggata aaagactaca aattgggttc agcggatact gctcaggtga cgggtgcacc   14520
taaatctcac aaatcatcac taaagaactt agtcatgtca ccaaatgcca cctgttcccc   14580
cagaaaccta tggaaataat aaataaataa ataaagtaca gcatttttct cagcaaacat   14640
aaaataaaac aaagactaaa gttcatattt ttcactctcc ttttgggcag gacaaatttt   14700
agataggttt ttaaagaatt agtaactttt ttcctttttc cgagacaggg tctcccttttg   14760
ttgcccaggc tggagtgcag tggtgcaatt atagttaact gcagcctcaa actcctgagc   14820
tcaagcgatc ctctgcctca gcctcctgag taggtaatac gaaaggcgca tgccaccagg   14880
cctggctaat ttgttatta accttttgt agatatgagg acttgcgatg ttgaccaggc   14940
taaaaatgaa caaatcttaa ttaacttaaa tatttctaac actttgggca ttcaggaaaa   15000
cagctccatc tatgttgtga agtaatggga agtatatggc agtggataaa ctttgaatga   15060
aaatattaaa caaggcctta ggagaaaagt gtaatatgct tattatagat acattaattt   15120
aaaaaattct ctggcttaat atcattaatt atatccaaat tagactttga tttaaacaca   15180
ggtcctaaat ttggattaaa tataatagat tgaccacaaa tttatttcgt ctccctccgg   15240
aagcctcatc agtcataaaa taaaggttac acccatgacc agcacagaag gttgacagag   15300
ataattttta ataaatgctg agacataaaa agtagataaa ggagtggtaa ataacacaga   15360
```

```
aacacaactt tggtgcctac agaaagtgac tggaacagaa gcgagccagt ttgtcttgca  15420
gaactaaagg caggttgtga acttacaggc aaatggcact ttggaaagta gggtaaaatg  15480
tgaaaaaaaa aaaaaagcca gcaaggtcag ttgcaaatct ctaactagag ccccaagtcc  15540
acctgtcctt ccatctgaca agaaacttag atgtgtgttc tctggatata tcaaacctga  15600
gaatttctgg ctcagagata ccatggctta aacctgagat ataaagaaaa ctgtacacca  15660
aaaatggaac tccaactttc ttcgctaact ctgctttttcc tttccaggcc tgctttact  15720
ttccaggcag aaaactggga gatccttctc agaagaaact gaaatgtctt caaaaaagat  15780
ccccagataa tacactgagg tctcccaaat gaaaagctag tcaggcttct aaggcctcac  15840
actgagtgct atcagttaac agaaatcctg cttccaaata aagcaggcca ggaaccacca  15900
cacattggag ggaagcctcc aagaaaagag atcaaaacaa tagaaaaaag gaattgatag  15960
gaccagtcaa aatcaggagc aaaactttaa aaaaaaatct taaaacactc tcaaaaaata  16020
taaaattcaa tagaaatagt agaggataaa gtcacagaat atcccagaac tagaataaaa  16080
agacaaactg aaaaaaatac aaggggaaaa attaaaaatc aatgcaggcg tactggtcta  16140
agcagcctag catctgaata acaagactat cagtaaaaaa gtaacagaga aaataaaaaa  16200
aaaaattctc aagaagagat agtctgcagg tttagtagcc tcaataaaat gaaaagatcc  16260
ccaacaagct gttataaaat ttcagaacct tagagagaga gattctaaaa agcttccgca  16320
gataactaaa acctggttgt aaataacata tcacacactg gcaatagatt caagaacaac  16380
actgtaataa gagcacaact gcaaaatgtc ttcagaacca tacaatttag attcaaccta  16440
gaggtgtact ctctatcaaa gaggagggat tttaacatct ccacacagga aaatgtgttc  16500
aagtacaact agagacgata acaggacaga aggaaacaca gaatctagga ctcaggcgat  16560
cccacacaag acagcagtta catgagatac caaaagactt taaagagtta gcccagaaaa  16620
gcagacattg agcatatcta gggaaaccca cgctatattg aactaggatg acaaaaggcc  16680
aaagaaagtt gcccccccaca caaacataaa aaggaacaga tgtgttttcg cagatggaaa  16740
atatctttga aaggcatgtg ataaatgcta caatacttgg gggaaaacag ctgttagaaa  16800
acaggcaaat gaatatagtc agaaaattag cttcatgcta aaaaataatg gatgtgaaag  16860
caaacagagc acccagaggc tacttaacga tatttggata gataaactaa cgtaggctag  16920
gaaaaaagaa gatccaggag aattgcagaa gtgctcagat ttcagaactg tttcagagac  16980
aggatgaagg acatggaatg cagaggcaca gtgaaaacac catatgactt agcagtgaat  17040
aatatttgca gagtcataat catgtaaata ttactgattt aattaaaaag tgtgctacaa  17100
ttggaagaaa cacagggaga aacataagat catggtgtag cggggaaggt atgcttttac  17160
ctgctgtgac agaaagtcaa tagacagtgc tggcaattaa cttagctatt ctatttttgt  17220
tctttcatta aaaataagat taaatattta aggcaatttt ttttttttttt ttgagacaga  17280
gttttgctct gtcgtccagg ctggagtgca atggcgcgat cttggctcac tgcaacctcc  17340
gcctcctggg ttcaagtgat tctcctgcct cagcctcctg agtagctgag attacaggca  17400
tgcaccacca cgcccagcta cttttgtatt tttagtagat acagaatttc accatgttgg  17460
tcagggttgt ctcaaattcc tgacctcaga tgatcagcct gcctcggcct cctaaagtgt  17520
tgtgattaca gacgttagcc accatgccca gccttaaggc agatcttttg aaccggacta  17580
ttgaaattta acttaaatgt cagaaatctt taaaaggtgg acacgctaaa ctaagcactt  17640
ttctggataa atttaatact caggaaaata gaagagattt agaaaatcca caaaaagagg  17700
tccatgctac caccaccagg tccacattgt aatttaaaga aatcaagaga gacatccttt  17760
tatgtcaaac tatcaatttc ttaactattt gagtgtttac ttacatggtt tgtacagttg  17820
cttcttctta tttctacaac taagaataaa aaaaaaaaaa ctggtcactt ctgatacaaa  17880
taccataaaa taaaagtagt tgttaacatc ttactgatta ctcctatgaa aaatgagaca  17940
aaattccatt aaaaaaaaaa ttttcaataa catataattt aaattatctg gcatgattaa  18000
tttcataagt caaatctaaa aacttagatt ttcatttagt ttactttttg tttctattac  18060
acacaaatga aagaatcctc atgtacaaaa gaaaagggca aaaaaattag gccagatgaa  18120
aaatttagct aataaaaagt ttaactgttg catatatgag ccatgatcca ttagtattct  18180
ctcattctgc atttacacat agcttacttt aattatcaga ctctaagagc taacagttct  18240
aaaaactact tcctgaccag acacctatct ctagatgcaa cagaatccct gtaagcatct  18300
tgaaccacac ttagtggtta tctactaata tgtcactaaa aacaaaacaa aattaaaaaa  18360
tggtctttac acaactggaa agtaacctat cttaaatttg ttttctttttt tgagatggag  18420
tctcactctg tcacctaggc tcgagtgcag tggcgggatc tcagcgcact gcaacctctg  18480
cctcccaggt tcaagcaatt cttcagcctt agcctccgga ctagctggga ccacaggcac  18540
gtgccaccat gcctagctaa ttgttttttg tattttttagt agagacagag ttacactgtg  18600
ttagccagga tggtcttgat ctcctaacct cgtgatccac ccacctcaac ctcccaaaga  18660
gttgggatta caggtgtaag ccacagagcc tggcctaaat tttgatgtta aaataagtat  18720
acaaacctaa ttggacatgg tgtctgcagc acaaaaaatc atttttttttc cctaaaaaga  18780
ggccagaata ataaaagccc caagagggac ttgggccatg ctttgtttcc tacactgcct  18840
ctgcctttga tgctgggagg gccttgtagg caaaagttac taccactgaa gagtgaggga  18900
catggaatag cttttctttt actgcttcca tgctctctag gtgtgagaag cccatgcctc  18960
tggaaggaac tgggaaatac aattctgata tgttttggat atgttgcccc tccaagtctc  19020
```

```
atgttaacat gtgacccttta atgttggaga cagggcctag tgggaggcgt ttgggtaatg  19080
gcagtggatt ccttatgaat ggcttggtcc catccccatg gtaataagca cattctcatt  19140
atggtaattt aaaagactgt ggtactggcc aggtgcggtg gctgaagcct gtaatcccag  19200
cactttggga ggctgaagcg ggtagatcac ttgaggtcag gagtttcaga ccagtctggc  19260
taacatggtg aaacccctgtc tctaccaaaa atacagaaat tagccaggtg ttatggtgcc  19320
cacctatagt cccaactact cgggaggctg aggcaggaga attgcttgaa cctgggagat  19380
ggaggttgta gtgagccaag atcgtgccat tgcactccag cctgtgcaac agagtgagac  19440
tccatttcaa aaaaaaaaa aaagagtgtg gtaccttccc ccttccccctc tctcctccct  19500
ctttcacggt gtggaaccac ctgcttcccc tttgccttt atcatgattg taagtttgct  19560
gaggccctca ccagaagcag atgttaaagc catgtttgta cagcctgaaa atctttgagc  19620
caattaaacc tcttttttgtt ataaattacc cagccttagg tatctcttta tagtaatgta  19680
aaaaatgaag acaaattcta accagaaata actgactcaa gatgggcaaa gtctactcaa  19740
actataaaaa caaaggttac aaactcccgt gttttactgt gctgcattac ttcgcacatt  19800
ataatagaac cctcacttgt gttcttgctg tttaagtcaa ctggaaaact tggctgtgta  19860
tggcttgttg gcaaataaat gaggatttaa tataacatta agggaaataa gcaggagtaa  19920
ggcatgttta aatttacatt atatcaaatg aaaaagttaa taacctaaaa cttttgagta  19980
gcgtaaactt ggatgtggta aatgaatgtg gtcagaggac tgtgtaagag gaggcccaaa  20040
tcacagattc aatccctgat gataaacgac tatgtttttt aatttgttta aatgaaaacc  20100
aagctgaagt tctatcattc atctttaaaa tgtactttt ggagcaaggg aaaagggatt  20160
gtaaataaag atgaatccat taattataaa taaagataaa tccaagaatt ataaagagaa  20220
atccatgact cctccatcac atcacaaaat aattgtgttg ataaaaagat ggcaaaatgt  20280
ataaacaaaa aggttacacg ttttcactaa catcatagca actaaaggaa agtatatcac  20340
atattaaaat aagacaaggg aacatgtgaa aagatgaaaa ttttaaacca atatgagttt  20400
ttctaaatac tttctataac ctgatcaaac aagagctttt attctttctc ttggtggaaa  20460
aaacaatgtc gtctcaccat ctgtttgaga gttcctctgg aatattgtgc ttgcctctgg  20520
attggcagaa gggttaaact ccaaagctat atgcatagag gaagaaaaga aaaaagatg  20580
taatcattga taaaaattta tcaactcgtt tattcgactg ctgcatttag gctatttcac  20640
tatctctact ttgattctta tccattgaaa tgaatgtata gacataagag agagccaggc  20700
aagatggcac atgcttgtag tcccagctac tcaggaggct gagatgggaa aatcacttga  20760
acccaggtca ggaagttgag gccagcatga gtaacataat gacaccctcc tttatttaaa  20820
aaaaaaaaa aaaagaagag gtaaattttg gctttgagtt gtgtaaaatc aactttgcat  20880
aaaataaatc aagatggcag taagttttaa aagacaggtc tattttatag gcaaaatata  20940
agatgtattc tagagttttt aaaattttta aaaagtaaat tcatcatatc tgtcacttcc  21000
atttcattct gaggacacag aaccttagtt ctcttgagta gctgtcttcc atagtcatgt  21060
gatatctcta agttttcatt tcttcgttag caacacatag ggagaacata cacaggcctt  21120
atttgtattg gaaagggcca agtgagacat acataaactg tgttgtaatc ctaaagaatg  21180
acaataaaga gccatttttg ggctctcatc caacactacc catctactaa ctggtgtgta  21240
acatccatca ggctttccga acatcaccaa gcagagtata agtttacaca agtacttaca  21300
tgctttgtgt ataaaggtac aatcaattaa ttcacataat acatttgttt attctaaagc  21360
aatccttaaa tatcttgaaa tgtgaagata gtacttccaa gttacaaagt cacactcata  21420
atgagtctta attatcctac ctctttaaaa attaagagcg caaccaaagt ttaaatagaa  21480
gagctataag acatttcctc tacagtgatg aaatctctgg catttaaatg aaaacaataa  21540
gcctactgga tgtaatatgt ttatgatgca atgttttcta ttttgaaaat ttcagttttt  21600
attcaagaac catattatta cccagaatta cttttactta gattcatctc tttgcaaaat  21660
tttagaggca aacgaactaa ttgttttctc ttttctaccg gctcccatcc cctgcctctg  21720
ccagcagtgt agagactaaa aaactccaac tttctttcct tttttttttt gtgagacgga  21780
gtctcgctct gtcacccagg ctggagtgca ttggcgtgat ctctgctcac tgcaacctcc  21840
acctcccagg tccaagcaat tctcctgcct cagccttgtg agtagctgga actacagtca  21900
tgtgccacta cgcccagcta attttttgtat ttttttttta gtagagacag cgtttcacca  21960
tgttggccag gctggtctgg aactcctgac ctcaggtgat ccgcctgcca cggcctccca  22020
aagtgctggg attacaggcg tgagccacca agcccagcca aaactgtaac tttcttatct  22080
ttgaacaaga tgctattgtc aggaggggaa gggacaaagg gggagccatg gcaacaaaca  22140
ctcttacagg gaaggtctga catttttaacc tgcaatcttt atattacaca ttgaaagtct  22200
acattgacgt ttcatgtctt ttgaaagttt tgaccatgaa ccaatcccca cctctctttt  22260
agaacaagga ggtaaataaa gtctgttaag tcaccagaat aaatctggag acacattttc  22320
tgttaaagta agaactttaa cagaaaagag cttcataggt aaactccttt gagaaacccc  22380
aaacacacac acacaaccat ttttctgcag ccccggctgt gacatttcac acctttcaca  22440
attattttaa gcactctcct ttttttcttt tccttctgtg ttcaaattac agttagaaga  22500
aactaagcag cttctatcaa ggtgacttaa agcagcccat taagaatacc atatagcctc  22560
tcccatggca aactccattc tgattttaaa taagaaatcc ccaaatattt gaataggaac  22620
tgtcttgaga tttggctact ttaacaaagg aaacaattag gcacttacct ggttccttca  22680
```

6945

```
cttaggtacc atctggatag gtacaaagaa aaaataagat gggtactgaa aagttgggat   22740
atttgagttt ttattgagaa aaggaagaga atagctcaaa gaagcctaaa caaagtccca   22800
caggataata aacagagcta cagacactgt tgtctcacca tctgtttgag agttcctctg   22860
gaatattgtg cttgcctctg gattggcaga aaggttaaac tccaaagcnt atatgtatag   22920
agggagaaaa gaaaaaagat gtaatcattt ataaaaattt atcaactcat ttattcaact   22980
gctgcttatt cgacaagagc cataaataaa tggtcccatg ccagcctggg agaatgagat   23040
gagagagcaa gaactgggcg attgggaggg gaggcgaaaa gaaactgact ggactcggtg   23100
gggaaatact aaggggtggg aattcaaggc agagccagct tttgttcctg gccagctccc   23160
gggaaagctg gctacaagca gaaaggagct cgaagtgggg gatgcctcaa agggaacctt   23220
ggggacagta gcagccagag gcaaaccgag ggtagatggc acctatcacc tcctcacctt   23280
caggcatctc ccggtcacga acgtggtgca tgtggaggtc ctcaccaact tcaacagtca   23340
cctcagcagg ctgtacagca gcagccatgg gcgctcctgc catcctgtcc ccagctcctg   23400
cctcatagat ctcagattca gagggacaca ccgacccctg ctgctggtca aactcgaggc   23460
tgacgctagg gtgcacacga caggtcagta tgttccccat ggggcgcctc tactgtctgc   23520
caccacctgt gcctctgctc acagctttgg ccacgcactc ccgctgtcct aggccgaggc   23580
tatgctgcac ttgcagagat ggtcttcccg ctcctcgcct gcccacctca cagcgcggcc   23640
ccgggcacca gccctggccc tggccctggc cccggccccg gctagggctg cgggccaagg   23700
cccgcaccct gctgcctccc ctgagttgac ttgtctggga gggtgaagac cagccggctt   23760
atttaatagg ttgtgaaccc aacaagtgct gagagacaca acaactgcct gaagagagaa   23820
cagacggagc tcctcctcct tctgtagtca cctacagact gaagcccact ggccccaggt   23880
gggagcccag gcatgtggca cacaatgccc caccccacac ttcacaatgc cctc          23934
```

<210> 9372
<211> 8900
<212> DNA
<213> Homo sapiens

<400> 9372
```
tgtacaaaaa tcaatgcaaa tttatgaact ttttttcaaa tatattttca cacatcttat     60
ctaaatacat aatacagaag cctgtgtgac ttgggcaatg tggccaggag ggcctgagac    120
taacacatcc acctcggcaa aaggacataa aatatgtctt atggtcagaa aaatcaacat    180
tttgtgtatt tacttagttt atgagaagta ctgaaaatgc tattataagc tgaatttgtg    240
atttcctttt gaaattctga gttatcctta ttttccccat tttgttttttg caccaaggag    300
actgtagtca aataaaacag aactacacgc actcgtcggg gcagccgtac tgcagaagca    360
cgttgatgca ctcctggctg gaggcctgcc gggcgtaggt cagcgctgtg ttcccgtggg    420
catctcgggc catgacgtcc accccgtacc agatcaggag ctgcgccagg accacattcc    480
ccttgcggca ggccagatgg agcgccgtgc agccgtctcc ctccccacag gtctcgttca    540
cctcctcacg ggagccatgt gccagcagca ggatggctgt ctgcaggtcc tcatcagcgg    600
tggcccgcag cagctgctgg cccagggaca gatcagtgca gggtagtggg gccagaaaga    660
gcttctcctc atatttggaa aggatccacc gttcctttttc ttccctcgtg gacttttctg    720
agggtttttgt ctgtccctgg ctgctccctt cccagatgct gttggctagg tcattgccaa    780
tagatgacat aaccttcctg agctcaactg gccagtcatc cagctccaga gatcgcacac    840
gggaaaggcg ggtgccaaga ctgcggtgga tacctgagca ttcaatacac atgaggactc    900
ccaagttcaa actggcccac ttaggattct gggtctcaca gtccacacag tgggcgttcc    960
cacgcatgtt ttggatcgac tgcagggcca tggcctcgct ctggctggtc agctgggact   1020
tgcttttact gctctcgcat gactgcaggc tggccaggat ctggctctgg atggcttgga   1080
cccaggcatc ccgctcctca tatgtcgtgg cttcaaagtg ccacgtttgg ccagtggcag   1140
acacaatcat aaagttgttg gtgctttttct tctttaggtg tttctttttta ttggcatgag   1200
gagagggggg cgggttgagc ttggggccgg tggtgctgga gatactgggg ctgaagcata   1260
tggagtcacc cagcccggtg tccatgtcct tggataggtc attgctttta gagctggaga   1320
tgggtgcgca ggccgatgtg gctaggatg gccactttcc tgggactttg atggtagatg   1380
tctgaaggtc aatctctttt ttatgaatat tcttcatata atcacctaag cttgaataat   1440
aggtgagcac gccattggaa cacagggtga cgtatttctt tttccatgtc ttcagccatt   1500
tcccacttcg ctttaagagc atgccctgtt taatggggat ggctctgccg ctcccgatgg   1560
tgtcagcatg attctccggg gctttcctct ctttgtctgg gtcactccct ttctcagatg   1620
taaacaggtt ggaccagcgc atggaccgct tgcaaacggg ggtgggtgtg ttggcagtgg   1680
gaggaacact gaactgaggg tcctcctggc tggtgctggg agtcgatgga atggaggagg   1740
aatagttatt taaactccca cctccatttc tgttcttcgt aatgtgcacg gtggaaacct   1800
gtgtggaaca gaaggaggaa tggcttcaaa aattgggtag tggcttgcag ggtcctatag   1860
acagctcaca attacctttt aaaaagatac attttctggg ccaggcatgg tggctcacac   1920
```

```
ctgtaatcac agcactttgg gaggccaacg tgggtggatc acgaggtcag gagttcaaga      1980
ccatcctggc caacatggtg aaaccctgtc tttacaaaaa aaaaaaaga aaaaaaatt        2040
agctgggcat ggtggcacat gcctgtaatt ccagttactc aagaggctga ggcaggagaa      2100
ttgcttgaac agggacctgg gaggcagagc ctgcagtgag ccaagatcgc gcgattgcac      2160
tccagcctgg gctacagaaa gagagtccat aaaaaaaaaa aaaaaaaaaa aaaagatac       2220
attttctgtt gtttggatag tatatttact catactagct cactaactaa acagagctgc      2280
agatcagttc ttactccagc acattctttt tacaacactt aagatgacta aatgcaacat      2340
gaaatgggga agatttaaaa aaagatggct ttgacttcag catgaaacag atacaagtgt      2400
acgatgaaaa tacaacctca ataaaagtgc cacttaccgc aaatgagtgt aactgttcat      2460
caggtatgct caaagatcta tctgcatctc tataaaataa gaaagcgcgt tacttcaaaa      2520
actgttaata tcttagtata atatttgttt agtaaaatac tgcctcctgt gtgctttggt      2580
gtttaccaaa gcagttttta cgaattcttc tcctggatcc tgacttgcag agggtttcct      2640
gacttcttct ttctcagcac atcatggcct gtaccgtgaa gtcttttata tgataaccag      2700
tcagaaatgc ccgtgagtat tgactctccc taacaggcca tggcaataaa ccaaacatat      2760
tttcactctt ctaaccacac attgaaacac aagaatgttc tacaaagcag tagtagtaaa      2820
ctttaataaa tgtaaatgtg attcagattt cctagcttcc tttctcttta gttctctgta      2880
gtatactctc atgatgtatt tatgtacttt ctgttgtttg aatgacaaac tcatctgcct      2940
ttttaagacg ccagtctttg atgaacttta aactttgtaa aactaatgca ttgtgcctgt      3000
gtataaacca gtggttctcc aaatgtgctg tgtggacctc tcgggatccc gaagacccct      3060
tccagaaggc ctaagaggtc ataactgttc ttttttttttt ttttttttga gaccaagttt      3120
tactcttgtt gcccaggctg gagtgcaatg gtgtgatctc ggctcatggc aaccttcgcc      3180
tcccaggttc aagtgattct cctaccccag cctcccaagt agcagggatt acaggcacct      3240
gccaccactc ctggctaagt tttgtatttt tagtagagat gtggtttcac catgttggcc      3300
aggctggtct tgaactccta acctcaggtg atccgcttgc ctcggcctcc caaagtgctg      3360
ggattacagg cctgagccac tgtgcctggc caacactgtt ctgaatcata ctaattaaac      3420
ctgagaaagc tgatgaaaaa ttttaaaaat ttgtgaaagt aatacaaagc cattgcctgc      3480
tctttcgttg acacttgcca tgattatata aaagcaaaag tgggtacaat ggctggtttc      3540
tcagcataaa tcaaggcagt ggtaccaatt acattagtag tcattctatt cttcactgtc      3600
ccctacaggt aaaaaacata gcctgaattt cttaagaatg tctttgatga agcagtaaaa      3660
attaatgttg ttaaatcttg acatgtctct aatattctga ataagtggaa agttaaccag      3720
aagcgctttt ttttttgttt ttaaagaatc cgtgatttaa ctatgaactg aaaaatcact      3780
tttttcacag aacatcattt ttatttaaaa gtacaactgg gccagcgcag tggctcacgc      3840
ctgtaaaatc ccagcacttt gagagaccaa agcaggcaga tggcttgagc tccttcagga      3900
gttcgagacc agcctaggca acataacgaa accctgtcac tgtcaaacat ataagaaaat      3960
tagcctggcg tggtgccaca catctgtggt gccagctaca aaggagcctg aggtgagagg      4020
attgcttgag ctgagatcat gccaatgcac tccagccaag tgacagagtg aaactcggtc      4080
taaaaaacca gttcaactat cattctcaaa aataaatgaa gtgagaggtt gtcacttcaa      4140
gggaaatacg tatttgttcc caatgataaa atttaagctt tcctgtggac tttgaaaaac      4200
ttgttccttc tactgtaggc ttggcagcta ttcaatactt aaaggcgtgt aaagtaaga       4260
ttggtggtta aactaaaagt gatttttgac acaataaaac ataaaccgat atattccaag      4320
taactaatgc atgatattat aaatgcaagt atggagcaaa agatccattt actgtggaag      4380
aaagatcaat gagtactgat ggaataaatt tattaatatg taaaatgcca ccgtaactaa      4440
tttaagaaac caccacttgt gaagttttga tttagtgtta acaaataccc acaactgtct      4500
gaaaagttta aaaatacacc ttctaccaac tacatatttg catgaggttc ggtcatctta      4560
ttgcttcttt ttttctttt ttgagacaga gtctctctct gtcacccagg ctggggtgca       4620
atggcgagat ctcggctcac tgcaacctcc acctcccagg ctcaagcgat tctcctgcct      4680
cagcctccca agtaactggg actacaggca tgcaccacca cgcccagcca tttttttgtac      4740
tttcagtaga ggcgggtttt accatgttgg tcgggctggt ctcaaactcc tgacctcaag      4800
tgatccaccc acctcggcct cccaaaatgc tgggattaca ggtgtgaacc actgcgcccc      4860
accagcttat tgcttttttt gtttgtttgt ttaggcagag tcttgctctg tcacccaggc      4920
tgcagtgcaa tagcaccatc tcagctctct gcaacctccg cctcccaagt tcaagcggtt      4980
ctcctgcctc agcctccaga ataggtggga ctacaggtgt gtgccatcat gcccagccaa      5040
gttttttgtat ttttagtaga dacgggggttt cgctgtgtta gccaggatgg tctcgatctc     5100
ctgaccttgt gatccgcccg cctcagcctc ccaaagtgct gggattacag gcgtgagaca      5160
ccgtgcccaa cctcttattg ctgctttaaa gcaaattgca aagaaagctc tagagaatcc      5220
atttgtctcc tattaagctc aacatgagag actttaaata atataaatac atgacgcact      5280
ttttactcaa ctttttgttg tagaaaagtt attttttcaat gaaaaaattc tgttaacaat      5340
actgttctca aggaatattt tctgttgtta taacctgggt catgggttac tactgatatc      5400
tagttggtag aggccatgaa tactgctaaa ctctctgcaa tgcacaagac agtcctcaca      5460
acaaagcatt atctagccca taatatcaac agtggtaagg ctgtgaaatc taaactaaaa      5520
atagattttg aaaaaatttc aattgtataa ttctaccaca ctaaatatca atataatcaa      5580
```

6947

```
tataaacaca tactctttga gattctcaat catttaagaa ttatgagagt cttaaggaac  5640
aaagaaaata caaataattt gcttcaatat tttagtaggc acaatacagc ttatgatgtg  5700
cctaacactg agcttgatat cttgcaaagt acttagctag aataacaaga caggtttcta  5760
aaaagctcac ctttgtgtga tatgatgagg tatctccaag gtcacactgt ggaaggaaaa  5820
aaaattcata acaatagatg ttaacatttg ttaggcctga agacattttt taaaaggggg  5880
gcagaggaaa ctctcctagt ggccctgaaa ttcaaatctt ctagttcaga acagtaccat  5940
aagggcactt tgttttcatt tctttgtttt ttacaaaaat atgagaacca aaatgcaagg  6000
aaatatgccg ttagaagacg cgtttctgtt ggtgattaca atatataaat aataacagat  6060
ttccttgtta catgcttttc tacccacgaa acctttcgtc ccatgcgatt tattttatgt  6120
atttatttat tttttgaccc agagtctgtc tctcttgctc agactggact gcagtggtgc  6180
catcttgact cctcacaacc tccaccaccc aggttcaagc gattctcatg cctcagcctc  6240
ccaagaagct gggactacaa gtttgtgtca ctatgcccag ataatttttt tttggagggg  6300
ggcggtgggt ggagtttcgc tcttgttgcc caggctggag tgcaatggtg tgatctcggc  6360
tcaccacaac ctctgcctcc cgggttcaag agattctcct gcctcagcct cccaagtggc  6420
tgggattaca ggcatgtgcc accacaccca gctaattttg tagagtgagc ctcaaaacaa  6480
ctgagggaag gcaaatctca attctactaa taggtctaca caatattagc actttttaaa  6540
aagcctgtaa cattagcagg taagatggat atgtctatag tgcttcaagt agttttcatc  6600
tctgaaataa ttttaaaatc acagaattta aagttacatg ctggaaagga ccaatgacct  6660
tatgtgacat ttaattcaac actcgtttta cagatcaggg aaacagacct taaaactgac  6720
ttgcccaagg tcccaccaaa taggagcagt ttctcatcct aaactcaaat taagcagtgg  6780
ctgtcaaact ttgctgcaca ttaaaatcgc ctgagaagct ttaatatctg cctcatcttc  6840
cacatgagac attttaattt aattagtatt gggtatggct ttgggcatca aggttcttgg  6900
taaacgtttc ccaggtgatt tcaatcagca gcaaagtttg gaatgattga gttggggtga  6960
aaatcagaat cttctgggat gcttttcttc acagaaagat gcctcacatc catcccgatt  7020
ttcctaaaag gcttctcagt gcctagagat agagggaaag tggagatggg aagatacatg  7080
tgtttgcaga cttgtgtttt gaaaaaaaag cctgtgcgat agagctgatt gctgcaggcg  7140
aggtttgcca gcctatccca ctgacaacag tgcactactg attcatgata aaacattttt  7200
caaaatatct tcttgaagcc aatttgccca attaatttgt tcaataactt tatttcacca  7260
atagtgaata caccaaatga tcatttctca aatttgctgg tggcaaatta aaacttacta  7320
tactctcaaa agtagacttc taaaaagtag aataatgagg aaaaaagcac gaaatttgtt  7380
tcagcaaaat taatcttcaa agctgctttt gaattatatg ctaacatatg aaaatctttg  7440
gaactcagaa gaagccaggg actctagtca aagtaatttt tgtgtatgtg tgctcagaga  7500
tttaagagac ttagctgact acagacattt agtgattact caataggtcc caaagctcag  7560
gacttgagac agagtttgag tccagttttt gttcgaaaca caatttcctc tcaactattg  7620
ttaaaaggga gggaggaaag tgacattatt atgagtgtaa actttccact tttaattgaa  7680
gtaaaagtta ttgacaattg aattagttaa aaaggctagt gcatttgaaa caaaattgtt  7740
tataagctag ttatgtgtac agaatgaaaa gttaaattaa agataaagac attaatattc  7800
taaattagca cttttccaaac tgtgttctaa aaatcaagac taataaccca agaagatgag  7860
aataatgtac actggacagc ccctgtggag ctggtggtgg tgttggttgt tgttcctttt  7920
aaaataaact tcatctcagg gtgctctcaa agcgcatctt tgtggcccat gaggtgctca  7980
tgcacaatgg gagaaattca aatgcagata cactgcgttg ccagaagaag aaaagctgtt  8040
ccttcttcca aggataatgt ccaaagtagt gcacactgat ttaggcctat gatgcattga  8100
aaaactaagt ttccacaaga aaacattcaa taaagggaac ctatccttct cactctgttc  8160
aacattgtct aaaggcataa aggcatcaaa aagatacact gtttctggga ttgcttcttt  8220
gctaactgat ttttccttcc accacgacgt ctaagattaa aagagaaact gatacttaat  8280
attcagaatc tggatatcaa tatatggttg actccaattt cttaaactga ttgctgaaaa  8340
ggacaaccaa atgactgaaa taattttaga ataaaggaat ctgtccctcg gcagcatagt  8400
tgtactcacg atattattgt cattgtaaga taatgctgat ggctgtgctg tcatcaagga  8460
atattgtcga acacaagctg tattgttgac tgaaacgcac agtagatacc tgaaggggaa  8520
gggaagtgta agtcaaactt atcaaagtgt attattttct cagttaaaat gtcaaatgac  8580
aaagcactaa gatatgtctt acactccatg aactgcctga gtgtggtatc atgtgcactc  8640
tatagaaaac ccattggagg ctctcaactt ccagagatga tgtttaagat atgggttata  8700
aaatgctgcc cttaatatgg tacctgtcat caaacctaac aaggatttta tgaattaccg  8760
ttaaaaataa tgggaaaagt cggcttcgcg gggcgcggtg gctcacacct gtaatcctag  8820
cactttggga ggtggaggcg ggcggatcac aaggtcaaga gatggagtac catcctggca  8880
aacatggtga aaccccgtct                                                8900
```

<213> Homo sapiens

<400> 9373

```
ggtgggtgga gtttcgctct tgttgcccag gctggagtgc aatggtgtga tctcggctca          60
ccacaacctc tgcctcccgg gttcaagaga ttctcctgcc tcagcctccc aagtggctgg         120
gattacaggc atgtgccacc acacccagct aattttgtag agtgagcctc aaaacaactg         180
agggaaggca aatctcaatt ctactaatag gtctacacaa t                             221
```

<210> 9374
<211> 413
<212> DNA
<213> Homo sapiens

<400> 9374

```
gagacagagt cttgctctgt cgccaagatt ggagtgtagt ggtgcgatct cctccacctc          60
ccgggttcaa gcaattctct tgtctaagcc tcccgagtag ctgagactat aggcatgtgc         120
caccatgccc agctaatttt cgtattttta tagagatggg gttttgccat gttgatcagg         180
ctggtcttga actcttgacc tcaggtgatc cacccatctc agaatcccaa agtgctggga         240
ttacaggcgt gagccactat gcccggcctc ctactatttg taataggaga tagggtcaga         300
taagggaata aaagcaggct gccccagcca ggggcagcaa ccagctcagg tccccttcca         360
cactgtggag gctttgtttt tttgcgcttt gcaataaatc ttgctgctgc tca               413
```

<210> 9375
<211> 12562
<212> DNA
<213> Homo sapiens

<400> 9375

```
gtcctaagaa aagcaaaggg tagttcatta cttgaagcca tcttcctcta tgagttctat          60
acaaagcctc agtagagtgg gtccaattag caaccaagtt gaacaacttt tatttgctga         120
ctaaatatag atacacctga attgttgact gcttttgtaa ctaaacactc ctctcctgtc         180
ttccaacgag tggtcatttt tgtccgcaac ttgaccacag caatccctgg ggccctagct         240
ctactctcaa taaagagtta tggctgtgtg ttttgaatga caccttagga cccatcctgc         300
ctccacctcc ttctccataa aatagaaacc taacttgccc ctccaagctc tgaaatgctg         360
aaacttacca actccctttt ctccccgcta tttcttcctt ccgtggcagg gactttcagg         420
ttttcttcct tttactaaca aggcactaag catgattttc tcatacaaaa tcgagagcca         480
taaagtggct taccacagtc ctatttcaat aaagatgaat actcgacatc tggcaagtag         540
tgtgtgcctg acagtgtccc cactgtgcta tgctcattta accctcagaa acaatctcat         600
gttacagatt ttgcagaagt tgttgagacg gagaaggtaa gcaacctccc caaggtcaca         660
tgactgctaa gggtgggggcc atagtttgat cccagctagt ctgaattccc cagttgctta         720
agcatgatta tcagaaagta tagcagtctg ttttcacact gatataaaga aatacctcag         780
gttgggtaat ttttaaagga aagaggttta actgactcag tttcacatgg ctggggaggc         840
ctcaggaaac ttagaatcat ggcagagggg gaagtccttc aggaaactta caatcatggc         900
agaagggcag gtccgacttc catggtggcc gcacagagag tgggaacatg tgaaggagca         960
actgtcaaac atgtataaaa ccatcagatc tcagctgggc acggtggctc acacttgtaa        1020
ccctagtact ttgggaggcc aaggcaggtg gatcaactga ggtcaggagt ttgagaccag        1080
cctagctaat gtagtgaaat cctgtctcta ctaaaaatac aaaaattagc tgggtgtggt        1140
tgtgcatgcc tgtaatccca gctactcagg aggctgaggc aggagaatca ctgaactca        1200
agaggcagag actgcagtga gccaagatcg tgccatggca ctcctgcctg gacaacagag        1260
caagactcca tcccaaaaaa caaaacaaaa caaaacccta taagatctca tgaggactta        1320
ctgaatatca caagaacagc atgaggataa ctgcccccgt gatccaatca cctcccccta        1380
ggcccctccc tcgacacatc aggattatgg ggattataat tcatgatgag atttgggtgg        1440
gggcatggca aaaccatatc agaaagtaaa ggtagaagtc aagcttggat gggaaatgac        1500
attgtagatg atgatgatga tgattattat tattattatt attattattt tgagatgaag        1560
ttttgctctt gttgcccagt gaaattgttt ctctaatttc attttcagat tgtgtcttgt        1620
agatgtatag aaatacaatt gataaatgat tctggctatt aaccttttat gcttcaacct        1680
tgctgaacac tatttttttt tttttgaga cggagtttct ctcttgttgc ccaggcagga        1740
gtgcaatggc atgatcttgg ctcactgcaa cctccgcctc ctgggctcaa gcgattctcc        1800
tgcctcagcc tcccaagtag ttgggattgc aggcatgcgc caccatgccc agctaatttt        1860
```

```
gtatttttag tagagacggg gtttctgcac gttggtcagg cccgcctcag cctcccaaag 1920
tgctaggact acaggcatga gccaccgtgc ccagccagat tcgtatattt ttaaaagaat 1980
ttttttttta ttttttttga gacagagtct cactctgttg cccaggcagt ggcacaatcg 2040
ttgctcactg caacctccac ctcctgggtc caggtgattc tcattcaagt gcctaagcct 2100
cccaagtagc tgggattaca ggagcccaac cccatgctca gctaatgttt gtattttagt 2160
agagatgggg tttcaccatg ttgctcaggt tgatctcgaa ctcctgacct caggtgatcc 2220
acctgccttg gcctcccaaa gtgctgggat tgcaggcgtg agccaccact cccgaacaga 2280
acaacatttt tttgatgtgg attttaaaat gcctcccctt cttttcaacat tgattaagtc 2340
ccttctacat gccaggcact gtatgtgtga aatagtccca actctcaatg agtgtaggca 2400
gatacacaaa caaagcctta aggaggtcag tttctgaga ccatactgct ggacagtata 2460
tgaacctggg atacaaaccc acctctattt gacctcaaat ttgatgctgg ggtggtttta 2520
attttattct gggaatttca gtcattgaac catgaaaagg tgaaaagtct ctgtcagatg 2580
tgtgtgtagt ggtctgtata ataaggactg aaggaagcaa ccaaacaaat taagagactt 2640
tctctaaagg cagagtaatg ctaagggcag tggcagtgac aaaagcggag gaaaaagtct 2700
gtgatcattt gggagacaga ataggaagtg cttggtcatg agatgtgaaa gaagagggga 2760
agtagaagga aaacagagct gctcaggctc tgctggggaa gactgggtat gtagcagtgc 2820
cttcctcctg gccaagaatg taggaagaga aataggtaag gaggaaaaga cagttttta 2880
ctctcagtgt cacattaaaa tggaactctc tggtcaaaag ttgaatataa atctctgtag 2940
gctaagtcca tttgtgacat cccaacatat gttttcaaaa ataacataca tactaaatca 3000
agccattaag cgtaactggg gaaatttcct aaaatttaca tgctaaaaaa tcaccatttt 3060
tcatttatta gtttcatgga gcaactttga atctatggtt acagcaattg aggcaccttg 3120
tataaaataa agctaataca tgaaaaaaaa aagccattta aaattctgtt gttctcagag 3180
aatggagaaa gcaattgaag ccatgggtgt ggaggtgact gccctgagaa gctgtgtata 3240
gtaaggagaa ctgggaagaa agaagacctg gagaataggg tgatttgcac ggcattaagt 3300
gaagcttgca aaagtgagca ctgagactca agagacctgc atatgaatca ggaatggctg 3360
ctcctgtgag ttgttagaaa ggagatgatg ccttcttttc atatctataa cagcagcacc 3420
tagcacagtg cctgttcaat aggtactcaa catgtattat cccaatgcag agtcaaattt 3480
tgccaggagg gcaggaaagc cacaaattag ctatggcaac ttagtgattg ggcttgtgtg 3540
tgtgtgtgtg agcgagctgg atgtcaggca gtgggtaaag tagtgaactg gaggtgagaa 3600
aacaatgaca caaactcagg gcttctcttc ccaagtattt ggctgagaag agagatgtag 3660
tattaaaggg agatatgtgg taaaggaaga cttttattcc aagattcaac aaaagcgtga 3720
gtatacttct atgttaaagg gaaagagcca acagagaaaa cacatttttg aggttagaag 3780
agaaggaaga actaatgcag aagggcccca aaaggcacag gtgcctgcaa tctggatcag 3840
ggacagatta gctttggact cctacaaaag caagaaggga gaaaggacca tgtgactcta 3900
gagatatttc tggtaaagga aaggtttagg aaaagatctt ttgatgacct ttattttaac 3960
agacttttt tttctttttg agatggagtc ttgctctgtc acccaggctg gagtgcagtg 4020
gcacgatctc ggctcactgc aacctctgcc tcctgggttc atgccattct cctgcctcag 4080
cctcctgatt agctgggact acaggcaccc gttaccatgt ccagctaatt ttttgtattt 4140
ttagtagaga cggggtttca acgtgttagg caggatggtc tccgtctctt gacttcgtga 4200
tctgcccgcc tcggcctccc acagtctggg attacaggcg tgagccactg cacccggcca 4260
gactttaaaa aaaaaaaaa aaaaaaaaa aactactgtg ggaaaagga tattatgtat 4320
agaaaagtct acacttcttg atacaactaa ctaaaaaaag cctgatacac taaacaaaac 4380
ccaaataatg tcttccctaa aagtgggtaa cttgaaaagc aatttgagca aaaatcaagg 4440
agttcaatta taaataagta tatcaacaaa gtgaaagatg ggtttaattt ttcccacaaa 4500
aagttaaaag aaataacagc aggtttagag gaagaggaaa aaataataag aaaattatat 4560
gcagttgcaa aatgtgtgac tatttacaaa ctctaacata taactacaaa atggaccaga 4620
agaatcatta tcataggaag caaagggtca tttcaaaaat cagaggaggg atgattcata 4680
tttaatttaa ttctgtggaa aaaatttaag taatgtttga ggacaaaaat aggtgatgtg 4740
ttgaaatgcg ggaaaccaca gtggaaggaa aaataattca agaaagctca gtttcagtaa 4800
ccagtatcta gtaaaatctt caggacctag aggctacaat ctgcattaat agtgtctgaa 4860
gacctagaaa tgtcattaaa taccatttg gataattctt gtagacttga gatgatgtct 4920
atttaaagtt acaaaatagt gcccatattt ctgtattcat tacagaaaac aattggatat 4980
ggaaaagaaa ctaacatgct atgccacaat ctctaaagaa agattaggga agtttcagct 5040
taaagcaaga ataatcacaa taaagtttta caaccctttg caagcatata tgaaaaactt 5100
acaaaaagtc tgtaatgatc ttttcttaag ctaagagaac agaaaaaatg agaaaaatta 5160
aattataaaa tgaaactttg gtttagaggt aagaaacatt tgatgacagt caagagatca 5220
gggttgtaca gtgtattatg tgaatgttgt gactcattgg tttcatcttg gatatcataa 5280
cttgacattt tgtaaaagtg attttcatg ggagtttctt caggtgccct atgaagtcct 5340
gtcccttag aagcgaataa tagtcttcca cattcttgag atatcttaat gaataacatc 5400
ttctacagtc ttccattgtt tagaccttgg agagacacgc attagtgact gttaaggtac 5460
ctgggttatt aggtgcctgt agactatgcc cagtgatatg tgcattaggt acatgctccc 5520
```

6950

```
tagctgtgct gacactgact gaagctgtga ggtttcacaa tgacatgtca gccaaataca   5580
tatgctcaga tttaccattt atcaagaggt cttcacacta tcaattgtgc aattatcatt   5640
ctacacacag gcagcgataa agggagtaaa aaaacacagc catggatcgg gagaccaagg   5700
tacctccaga ggagtccagt gggtccagaa gccctttgga tgttggtcag aagctcctct   5760
tgggcagaga tcacagcagc agccaacagg tctggagaag accttacagt tctcatggac   5820
aaagtttgtg aaggcatctt agacaagatc ttgtctttgc tggttttatg atcctctgca   5880
gatgggtcta ttctcattac ctcagccacc tttcacttcc tatcagttca gttcaggtct   5940
ctcatgatcc caggcagcag tagttgttat cacgtaagtt cattcatata tgtttatctc   6000
tggggatggg gggacaactt cactgtggac ttaattctac tggagatgag tgaccccatt   6060
ttaagacaac aggatcacaa attattatca catatcagca gggcagacaa tagctacgac   6120
ctggggctga aagcaggtaa ctctatttat tctgcaaaaa ttctgtcttg attatggtgc   6180
cagttgctgt gagggatttc ctttctagaa cctgtttttc acaaggtttg agtctgaact   6240
gttaacattc tactgatttc tgggtgaagg gactgactgc accatcctag cctgtcagag   6300
cacttgcccc aatacttcca ctttaagagt tttccacctt gtccagaact acagtccact   6360
aatcccctca tttttctctct taagagaata aacaggccag gtgcggtggc tcacgcctgt   6420
aatcccagca ctttgggagg ctgaggcggg tggatcatct gaggtcagga gttcgagacc   6480
aacttcgcct acgtagtaaa acctcgtctc tactaaaaaa aaaatcacaa aaattagccg   6540
ggcgtggtgg caggcacctg taatcccagc tactcgggag gctgaggcag gagaatccct   6600
tgaacctggg aggcagaggt tgcagtgagc caagactgtg ccacagaact ccagcatggg   6660
cgacagagtg agactccctc tcaaaaaaaa aaaaaaaaa aaaaaaagag agaaaaagag   6720
agagacagag aataaacaac ccatgtcaag tacacaccca catccctctt atcccaaata   6780
ccaaacacac aaaaatccaa tctgtctcct tctacctaag caattgcaga tagtcacatt   6840
cccataatta ccttaagctc cctgacttgc tgctcgtcct ttctctggca aaatctcatc   6900
cttggatgag cccgactttg tgtttgctca atgacaccac tcacctgaac cagaaaaaat   6960
atcaaaaagt ggtcagagat atcatcataa attcaaatta cttacataaa aaattggccc   7020
taaatgtttc cagaaatcaa taaaagtttt gtttctccaa agacatcatt tcttcagaaa   7080
cccaacgtgt ataacctatt ttttctatgt tcttctaaca ttcattcaac ttctctcatc   7140
tgatatcttg ccaaatcatt caaagagaaa atatatccca ttagtcaaga gccaaccata   7200
ttcccatcac ctgagaaaat catatgcaca ggatgcgccc acctcacctt tctctgcctc   7260
atgtcagaaa aagtacccct ccttttgtca caaggcaaac ctgagataaa agatttagat   7320
ggcctgtaat tccagcacta agggaggcca atgcatgcag attatttgag tctaaaaaag   7380
aagcctaagc aacttaggga aactgcatct ctcaaacaaa tacaaaccat tagcctagca   7440
tggtggtgtg gtggcacatg cctgtagtcc cagctactca gggtggggag cactgaggtg   7500
ggaggatcac ctgagctgga aggttgtggc tgcagtgagc cgtgatcacg tcactgcact   7560
ccagccaggg taacagatat tttttaaagg atcttctctg ttaaaaataa tcaaataaac   7620
aggtggccat gaggctgagg tggctgcagt gcactcaatt cctccttaaa taacccaaaa   7680
cttgactcag tgtaaataat aaaaggaaac ttaagtttaa ccagtcagaa accaccaact   7740
aacatctaac tagagacctt ccactgtaat gttccaaatg aggccactgc tccacttcac   7800
ccaatcaagt attttctttt tcttccacat tcaccatata aaattcttcc cccaccctcc   7860
ctaagcctct ctgtgggacc tctgagctgc ttgcagtctg gggctgccta gtttatacat   7920
ttctgaatgc tcaaatatat tttctaatgt ttcaaagtgg ctctggtgta ggaggttgtt   7980
ggtggagtga cccgagagta tacaggaatt gaggccatat gagatctctg gaccctgtac   8040
tccattttgc tgtacactca atactactct aaaataataa tatatcttta aaaatctata   8100
actatcacgt agcccttttc aagtctccaa ctggttggag ccagttcgat taaagctcag   8160
aaaaaactgg ttaataagct agttctgacc caactggcaa gaagcggcag gaaagaccca   8220
ggccagggga gcatattgca catgcatgca ccaggaaact ggaggaagct tggaggccct   8280
ttagcctggt cctgagcccg ctgaaactgc agttacaggc acagatgcct ggggcaccaa   8340
tctgaatctg ccaacatcca aggccacatg aacacaaatg cacagtctcc tctgcgatcg   8400
gtagctaagg atgttaggcc atgattggac taggatggga gatgaactga gaactctgga   8460
ttctgtaggt tgttgttgtc tcttcccacc cccaagcaac aagtgatgaa cacacacaca   8520
cacacacaca cacacacaca cacacacaca tcccgtagtg actaacagga tctccctcca   8580
ggggatttgc aggaagggga gcagaaaaca tcccagggggc ctttcacagc tacttccttg   8640
agcccccttt cagacagtgc tgtctagacc tgtctcagcc caagcatcac caccctgata   8700
cgcagaagct ggcatcctta cctgaaattc aacatcaaga aatgatctct tctactcaac   8760
actgatagaa atacctctaa gcaacgtcct cattggcagg ggtggagtgg gggagtttct   8820
taaaaagtga ggcctctgcc taccacctag agaacctgga aatttccatc tgtgccacaa   8880
agtccaaatc actggccact gccccagtgt atggcagatt agaacatctc tccattggat   8940
ctgggtttct attccattga gtgaaatgcc ttttctacta caggaacaga ataagggatc   9000
aaaagggtct tacaactgaa ctccagtgta cagtctgcac agacactagg cttgtgcaaa   9060
tatgacacag cgaggcccca ggacccttaa gccagctgaa tgtactgagt ttcaggaaac   9120
agtgagatac attcagcaaa acagtgggct tcatgctgaa agaagtcaat ccaagtaaac   9180
```

6951

```
acacatctca cacacacaca cacacacaca cacacacgca cgcacgcacg cagacaccct    9240
agtggccaat aggtcctctc accaaaaacc tgcgatcagg agagcagaaa gcctcccagg    9300
gctccaccac tgcccttct gtagccccct atcagacggc cagcctcagg acagcactgt    9360
ctgatcctgg tccagcccaa accgccatca ccctgtgatg tgggagcagg ccacttcacc    9420
agaacctctg tggcagaaaa atttctttct tttaaaatga tgaggggggaa ccttcagaca    9480
gtgtcctgat tagggtgggt ggagaggggg gtttcccaga aagtcaggca gggcagggca    9540
gaagccctct gggttaactg tgtgctttg atatgaaggc aggtaagact ggacaggtgg    9600
gggtgttagt gaggggatgg tgtagggtgc tgaagaactc cacttgggct ctgcgcacca    9660
gggaaaatga ccacaaaaca tcccatcttc actgctcaga gaaggctaga tctgctgtga    9720
gctaggaagc catgtggggg cagctgatga gtcatcaaat gggagaaatc tgagagccat    9780
gtgttccaca ggcctctggt ccttgttcag gcagcagggc actgtgagat gtggctcctt    9840
ggcccttcc agccaccacc ttgattgcct gctgcaagga aagagactga agcccaagaa    9900
tggggtcttg ctcaccatag gatgatggct cagtgtgcag agctgagcta tggcccaaga    9960
ggcaaaaggt ggggatgacc caggctgagc tgggggatcc aactgaacat gcacttgcta   10020
agaagctgtg ggctatgatg ccttgggacc ccagtctggg tcgagaattg tagcaaaaca   10080
ggctactggt aaaagttctt gggaagccaa ctcacttttg ctttcatccg tgggcaaaca   10140
aacctctgat caaccacacc acaatggtgt cactctgtaa ggcacaggca gacaaggcat   10200
ccagccttgc acactccagg gcccacacat gtccagaata caatggttct tgttgagact   10260
ccactcttcc aactcagaca gaagctcccc aatctcctca gccactccca acaactggag   10320
gtctgaaaac tttcatgcat gccgctatgg tctaaaccac tcgtggtggt tttgattttc   10380
attttcctga taatcagtga tgctgagcac cttccatat gccttttcac caactggata   10440
tcttctgtgg ctaaatgtct attgaaatcc attgcccatt tacaaatctg cttttttgtg   10500
ggcttcttga tgttttcctt ttttttttc ctatttattt atacaagttc cttagatatt   10560
ttggatattt ttaaaaatga ttttcaattc cattgcccca gttataaatc ttttttttt   10620
ttttttttt ttttgagaca gagttttgct gttgttgtcc aggctagagt gcaatggtgc   10680
aatcttggtt cacagcaacc tccacctccc aaagtcaagc aattctcctg cctcagcctc   10740
ctgagtagct gggattacag gcatgtgcca ccatgcccgg ctaattttg cattttagt   10800
agaggcaggg tttctccatg ttggtcaggc tggtcttgaa ctcccggtct caggtgatct   10860
gtccaccttg gcctcccaaa gtgctgggat tacaggcatg agccactgtg cccggccaat   10920
tatccctttt tgtggttttt ttttgggggg ggtgggggga agaacagagt ctcgctctgt   10980
cacccagtct ggagtgcact ggtgtgatct cggctcactg cagcctccgc ctcccagatt   11040
ccagcaattc tcctgactca gtttcccggg tagctaagat tacgggcgcg caacacatgc   11100
ccagctaatt tttgtatttt tagtagagac ggggtttcac catgttggcc aggctggtct   11160
caaactcctg acctcaggtg atccacccac ctcccaaagt gttgggatta caggcgggag   11220
ccaccactcc cggccccatt ttgtgtttta acatcagtcg acactcgtat tttaaaataa   11280
taacaatgaa tggcggtacc ttagaacaag gtaattatac atctttctct tgtcctagtg   11340
cagacatttt gtctataaaa tgttattcac agatgaattc atgaaaacat tactgtgaat   11400
tttaaatcca tatacaagtg tatgcttgtt catgaatact tcaataaaat aaaactaata   11460
gcaaaaaaga attccagagt tgaagcagtt tcaggaaaaa ggagttggca gtatgaagta   11520
aaatagaaaa aaatgggttt tttttaaat gggtatattt gtgtctacaa ctttttttta   11580
attatagcat tagacaatgt gtatatatat atacatatat aaagcaatgg aagtggcatt   11640
gttttcatac tagtctagga tattaaaata tatgtaatat gtgattggca aaataatggc   11700
cccccaaaga tgtccacaga ttcctagaac cttacatgaa aacggtacat catgcatgtg   11760
attcaggtaa agaccttgac atgaggagac taccctggtg ctatggaatg aacgttgtgt   11820
tccgtcaatg ttcatgtgtt aaaatcctaa ccctcaaggt gatggtatta ggaggttaag   11880
ccttacggga gactctgccc tcatgactgg gattagcacc ttattacagg cacaagggag   11940
cttgtttgtt cctctcacca tgcgaagaca cagcaagaag gaagcctcta tgagaaagca   12000
ggccttcacc agacaccaag actgccggca ccttgatctt gcatttctca gcctccagga   12060
ctgtgagaaa cgaagttctg ttatttataa gctacctggt ctaatgcatt tccttgtagc   12120
agcctgtatg gattaggaca gtgggctcat gtggatgatg acggtgtgtc cattcaggac   12180
taagtaagca catgagtcct taacagtgga agagaagggg gaaggaaaga gccacagaga   12240
catgtggcca cagaagaagg gtccatggga tgcaaggttg ctaatggtga gagtggagaa   12300
gagcccaaag ccaaaaaatg caggcagact ccagaatgtg gaaaaggcga gaaaaaagat   12360
cccctagagc ctctagagat gaaggtagcc tttccaccac ctagatttta gcccagtgag   12420
atccacatca tactctgaca tacaggagtg taataaattt gttttatgcc ctgacatagt   12480
ggtagtttgt tgtagcagca atggactagt aatatataaa tatatatata cacacacaca   12540
cacaaacact acccccccac ca                                           12562


<210> 9376
<211> 474
```

<212> DNA
<213> Homo sapiens

<400> 9376
tttgagatgg agtctcactc tgttgcccag gctggagtgc actggcacaa cctcagctca   60
ctgcaaaatc catctctcag gttcaagcga ttctcctgcc ccagcctccc tagtagctgg   120
gatcacaggc gtgcaccacc atgcctggct aattttgta tttttaatag agatgggttt   180
ccaccatgtt ggccaggctg gtcctaaact tctgacctca ggtgatccac ccacctcagc   240
ctcccaaagt gttgggatta caggcgtgag ccaccgtgcc tggtcaaatt tactttcttg   300
ataggtgtca gaaaataagg aaagtctgaa gaaaaaaaaa ttgtctaaaa tggctgcatc   360
ttggccatat gggtaataga aaccgggcct atgaacgaaa gctgaacctc acctgcaagg   420
ccagagtctg tcaaatatca cactgacagg caccgattac aacctgccta ttgg   474

<210> 9377
<211> 1349
<212> DNA
<213> Homo sapiens.

<400> 9377
gtatgacata aattttcctt cctttacatt tcagccttca aatatttgaa ttcagtttct   60
tgttcacatt tgggtcatgt ttgttgctgt ttttttgttt tgctttgttt tttgtaaatt   120
tcactctgcc atctctgttt ttaattagta tatttagagt gcttatattt aatgtaatta   180
ttgatatctt agggtttata tttgccattt tattttcctt ttcttttttt acctctgttt   240
cttatttctc tttttataat cctgctttcc tgtggattac ttgaatatac ttttaaattc   300
cattataatt tatctatagt gttttatatg tatttctttg taggcttttt ttagtagttg   360
ttcttcatat tacattatag ataacttatt gccatctatt ggcatctgat cataccattg   420
tctgtgaagt gaaaaacact taccttcttg cagattcttt tggtcttttt tatttagaag   480
ataattatct taaatatttc atctttatat atttagttat ataatctttg cttcaaccat   540
taggtatgat ttagaaatct caaaagaaga agaaacctac tgtgtttccc catagttaaa   600
ctcactctga tcttcttttc ttcctgatct tccaagatat cctcttttat tgttttcttt   660
ctgtttagag atgtttcttt aactgttctc ttaggataag tgttttggtt acaaatctca   720
gaactcttag ggttttttgtt tctttctttt tttttttttt ttagtttttgt tttaaacgtg   780
aagatttctt gatttcccct tcattcttaa aggatatttt catgatagaa ttctgaatgg   840
actgccccct tgcctacttt ttttttttgc tatacttgaa caatattatg ccacttatcc   900
tggaacttca cagatattta tgagaaatct actctcattt gaattcccat ttttctatca   960
ttgcctctaa gatttttta atccaataaa aaatacaaag ttttagcaaa aacatggtaa 1020
attccagcaa gaaatagaag atacaaattt gtttttatta ggagttatta tatatttatg 1080
gcatgttcat cctgactagg gaaatcgcaa atcctccttt aatatccatc agccatcaaa 1140
attatttaat atataaaca aaattattta agatataaaa gagaatcaca tggatatttt 1200
caaattataa atatgataac tgaaataaaa aatctaaagg agggctcaaa agcaaaatgt 1260
aggtgatagt gagaagaagc aaagaacttg aaaacataaa aattacccag tatgatcaac 1320
agagagaaaa taaaccagaa aaaaaccaa   1349

<210> 9378
<211> 302
<212> DNA
<213> Homo sapiens

<400> 9378
tttttttttt tttttttttt tttgacagag tcttgctctg tcgtccaggc tggagtgcag   60
tggcgcgatc tcggctcact gcaagctccg ccttccgggt tcacgccatc ctcctgcctc   120
agcctcccga gtagctggga ttacaggcgc ccgccaccac gcccggctaa ttttttgtat   180
ttttagtaga tacagggttt caccatgtta gccaggatgg tctcgatctc ctgacctcgt   240
gatccacccg ccttggcctc ccaaagtgct gggattacag gcgtgaacca ctgtgcccgg   300
cc   302

<210> 9379
<211> 10364

```
cccctactcg  cccttccgca  tccatgctct  gcccactggg  gatgccagca  agtgcctcgt    60
cacaggtggg  tgcccacccg  ctgcccgtgc  cctgctcacc  acccagcccc  tcaaagcccc   120
tccagaacct  ggcctggtcc  caggggtct   gctggtcgga  gagcacacat  gccctagccc   180
tggcccctcc  ctccctcacc  cccgcccaat  gccccagccc  acgttgagca  ccgcctggcc   240
tcacactctt  ctctctttcc  agtgtccatt  ggaggccatg  gcctgggtga  gtgcccttc    300
tctcctcttc  ttggtgtggg  ccagggtggt  tggcggtagg  gggcgggcag  cgggaacaga   360
gagggctggc  tccagcccac  cagctccctg  agcaggatct  cccgcatggc  aggtgcctgc   420
ctgggccctc  gaatccagat  tgggcaggag  acggtgatca  cggtggatgc  caaggcagcc   480
ggtgagggga  aggtgacatg  cacggtgtcc  acgccggatg  gggcagagct  cgatgtggat   540
gtggttgaga  accatgacgg  tacctttgac  atctactaca  cagcgcccga  gccgggcaag   600
tacgtcatca  ccatccgctt  cggggggtgag  cacatcccca  acagcccctt  ccacgtgctg   660
gtaagttctg  tagccacagc  aagactagat  ggctggggag  ggggggcctgg  cccttttagc   720
agcagcaggg  atcccagata  actgtcccca  aggaatccca  cttctctgag  ggctcctggg   780
gccagagtgc  tccaggatgg  agccttaact  ttccccacag  cacccccgaa  gtgggaggag   840
agcatggccc  tgcccccctgc  ccagtgctgt  cagctgtctc  tggaggaacc  cgctgtgctc   900
tccaccatcc  ccagctccat  ctccccagag  gctgccctgc  aggaggatga  acacccaaat   960
tatcacccag  catttcaggt  tcctgggcca  ttctctgagt  cagcccctag  gcctgtgagg  1020
ctgccacacc  ctgtgccccc  gtgccttgcc  tccccaggcg  tgtgaccccc  tgccgcacga  1080
ggaggagccc  tctgaagtgc  cacagctgcg  ccagccctac  gctcctcccc  ggcccggcgc  1140
ccgccccaca  cactgggtac  tgcgcctccc  accaggcgat  gtcctcctcc  tcctcccctt  1200
ccttcatttc  ttctctctac  tcctctgcag  ccagggcggg  gacatggtct  gggggcctct  1260
tggggagcag  gcaagagtta  ggctgggcag  atggaacccc  acttgggcac  agcactcctt  1320
ctcttgcagc  tgacgcacct  ctcctgccac  gctggtttca  tgattaacta  ccttgttctt  1380
tcctcactct  ccagcttcag  tcatagcatg  ggtcaaactc  ctgggccttc  cccagtcact  1440
gactgttccc  tctcacctgc  tgcaggccac  agaggagcca  gtggtgcctg  tggagccaat  1500
ggagtccatg  ctgaggccct  tcaacctggt  catccccttc  gcggtgcaga  aaggggagct  1560
cacaggtact  gccctgtggc  tcccaggcat  gagggctgag  gggagaaacc  ctcttccagg  1620
cccagtcctg  tgtcttaatg  atgaaaacaa  aggcccagag  agaggaagtg  agctctaccc  1680
agggtcacac  agcaagttgg  gcagagccag  aactcaggtg  caagccatct  gtccccagtt  1740
cagggctcag  gccactgcca  caggctgtct  cttgatgcct  ggcttctcgg  gtggcagcag  1800
aagcactcag  gaccaggcct  gggacagcag  ggaggttgca  gtgggggaaa  ccagggtctc  1860
cacgtaactg  tgtctgccct  gcaggagagg  tgcggatgcc  ctcggggaag  acggcacggc  1920
ccaacatcac  cgacaacaag  gacggcacca  tcacggtgag  gtatgcaccc  actgagaaag  1980
gcctgcacca  gatggggatc  aagtatgacg  gcaaccacat  ccctggtgag  ttaggggctg  2040
ggctgggctg  gggcttgggt  gagaggagca  ggccgtagct  tcagtcctgc  cttccctctt  2100
tcaacaaata  tttattgagc  acccgctgtg  tgcagacacc  aggcgaggcc  ccagggaggc  2160
ttataccctg  gtgggaagca  gacctccacc  agctgggtcc  ctacggcaca  gacggagggg  2220
gttggcaggg  aggctgctgg  aaggtgctgg  ggccaaggtg  ggctcagata  atccctgatg  2280
ctgacccagc  cccctttttc  tctgtatccc  cagggagccc  cttacagttc  tatgtggatg  2340
ccatcaacag  ccgccatgtc  agtgcctatg  ggccaggcct  gagccatggc  atggtcaaca  2400
agccagccac  cttcactatt  gtcaccaaag  atgctggaga  aggtgaggga  gctgcaggtc  2460
gcaggctggg  gtggagactc  accaggggca  ggggtgaggg  caggacctct  gatcttggcc  2520
acacctccac  ctacaggggg  tctgtcactg  gccgtggagg  gcccatccaa  ggcagagatc  2580
acctgtaagg  acaacaagga  tggcacctgc  accgtgtcct  atctgccgac  tgcgcctgga  2640
gactacagca  tcatcgtgcg  cttcgatgac  aagcacatcc  cggggagccc  cttcacagcc  2700
aagatcacag  gtgaggcggg  tgtatgggca  tgtacagccc  atgaggcaca  cacaccgcat  2760
acagtgcact  catgtgcaag  cccagcccgt  tcaagtcact  cgtgacatta  gggcagaggc  2820
ccttcaaggt  gtgaggggtc  atattttgat  aaatgtaaaa  acactctgtt  ctccacggca  2880
gctaagaagc  agtcagccac  tccttgtgcc  tgaaaacaca  ttgcctcatt  tagtctttga  2940
agtcatttgt  tttgtttttg  tttttgagag  ggagtcttgc  tctgtcaccc  aggctggagt  3000
acagtggcac  gatctcggct  cactgcaacc  tccgcctccc  gggttcatgc  cattcttctg  3060
cctcagcctc  ccaagtagct  gggactccag  gcgcccgcca  ccatgcctgg  ctattttttg  3120
tattttagt   agagacaggg  tttcaccgtg  ttagccagga  tggtctcgat  ctcctgacct  3180
tgtgatccac  ctgcctcggc  ctcccaaagt  gctgggatta  caggtgtgag  ccaccacgcc  3240
cagcatgaag  tcactcttaa  gaagttaggg  cacggataat  ccttttgata  gataaggaac  3300
ccctgtccca  gagaggccaa  gcaacatgat  tacagccaca  cagcgaggaa  ggggtctggg  3360
cggtccagtc  tagtgttttg  ttatcacaac  atcatgtgac  tcagggttaa  aatgcaggag  3420
```

```
gtttcctttta gggatttagc ccacaaggac tgaggcagcc acagtggaat tggggtacag   3480
gcccctctta gtctctggca gctcacatgt gagtgcagac tgcactttcc aggccttggg   3540
cctccgtgca cctgggagtg gcccccgtg tctgttgagt ccagggggg ctgctcagga     3600
gggttcctga gccctgtgag ggcagggcct gcctggagtc atagcagcct gatgccccaa   3660
ctcccccacc aggtgatgac tccatgagga cctcacagct gaatgtgggc acctccacgg   3720
acgtgtcact gaagatcacc gagagtgatc tgagccagct gaccgccagc atccgtgccc   3780
cctcgggcaa cgaggagccc tgcctgctga agcgcctgcc caaccggcac attggtgagc   3840
gtggggcctc acggggacct caggggtggg ggcccacagg atgctctgcc taacacccac   3900
tttccacagg gatctccttc accccaagg aggtcgggga gcacgtggtg agcgtgcgca     3960
agagtggcaa gcatgtcacc aacagcccct tcaagatcct ggtggggcca tctgagatcg   4020
gggacgccag caaggtgcgg gtctggggca aggggctttc cgagggacac acattccagg   4080
tggcagagtt catcgtggac actcgcaatg caggtacctc ctgccccaga gagcccccat   4140
tccagcgggt gcctcccaca ggcacttgtc ctcgtcctgc ccagcacccc cttggccgca   4200
ctctctcctc cctgaaactt cctgaccagt ctgcgtcagg attcgcattc tggggcccct   4260
tgcgggaaag tgaatggccc cgcatcagtt ctctcccttt taagagaaag ctcagctgtc   4320
ctgagtttct gtccctccct tgctcactgg aatccaagag gcttacctta gggaattttc   4380
cagaccgcct gtcccgtggt gccccgctc ctcccactga gccattttg ttagtggtca     4440
ctacacacat cggtgcccat tctgggtgga gcctgcagtc tggggagagg aaagcattgt   4500
ggcttggcca gcctaggact gagggagatg tgttccttgc tttcccccag gttatggggg   4560
cttggggctg agtattgaag gcccaagcaa ggtggacatc aactgtgagg acatggagga   4620
cgggacatgc aaagtcacct actgccccac cgagcccggc acctacatca tcaacatcaa   4680
gtttgctgac aagcacgtgc ctggtaaggc tctgggcaga ggtcggtggc gagagacagg   4740
gaggccagga ggctgggggct ctgaggttcc tgacccaccc tttgtcccca cttcaggaag   4800
cccccttcact gtgaaggtga ccggcgaggg ccgcatgaag gagagcatca cccggcggag   4860
acaggcacct tccatcgcca ccatcggcag cacctgtgac ctcaacctca agatcccagg   4920
tagaagcctg gaggaccctg ggtggggcgg gtggtgggag agggctggcc cgggccagag   4980
cccacctgtc gggcctccac cctgcttcct caccctcgc ttccctccct caccctggct     5040
cccttgacca cacaggaaac tggttccaga tggtgtctgc ccaggagcgc ctgacacgca   5100
ccttcacacg cagcagccac acctacaccc gcacggagcg cacggagatc agcaagacgc   5160
ggggcgggga gacaaagcgc gaggtgcggg tggaggagtc cacccaggtc ggcggggacc   5220
ccttccctgc tgtgtttggg gacttcctgg gccgggagcg cctgggatcc ttcggcagca   5280
tcacccggca gcaggaggt gagcaccgca cactgggccg gccgggtcct cacggcggga     5340
tgggagggtg ctgcggacca ggcttgatgc tggcagactg gccccgaagg ccagggcagg   5400
tctgagcaga ggaggaggtt taactgatgg gggagggaag ggccagggct aggaggaatc   5460
ccagtgttgc cctgacatcc cccaaaccct gcaggtgagg ccagctctca ggacatgact   5520
gcacaggtga ccagcccatc gggcaaggtg gaagccgcag agatcgtcga gggcgaggac   5580
agcgcctaca gcgtgcgctt tgtgccccag gaaatggggc cccatacggt cgctgtcaag   5640
taccgtggcc agcacgtgcc cggcagcccc tttcagttca ctgtggggcc gctgggtgaa   5700
ggtggtgccc acaaggtgcg ggccggaggc acagggctgg agcgaggtgt ggccggcgtg   5760
ccaggtaagg ggcaggtggc caggagtggg gatgaagtca gggcagccag tgtgaggggc   5820
gatgatgctg aagtccacta ccttgcctgt ccccagccga gttcagcatc tggacccggg   5880
aggctggcgc tggggggcctg tccattgctg tggagggtcc tagcaaagcg gagattgcat   5940
ttgaggatcg caaagatggc tcctgcggcg tctcctatgt cgtccaggaa ccaggtgggc   6000
gtccacactg gcagtggggc tgggcctgcc tgaccttcca gactgggttt ctgcccactg   6060
gccaggcagg agatgcttgg ggccacagaa ctcccctccc cggagccccc tgctcttcct   6120
ctgccccgtc tccctctacc ccacaccctc agaaacatgt gtctgcctcc agatctgagc   6180
gctgaccaca gagcctttcc tgggataagg ccagggtggg gaggctcccg ccctgccaac   6240
ctccatcccg gaacctgtgc tgactggtct ctctcccag gtgactatga ggtctccatc     6300
aagttcaatg atgagcacat cccagacagc ccctttgtgg tgcctgtggc ctccctctcg   6360
gatgacgctc gccgtctcac tgtcaccagc ctccaggttt gtgcccaggg tgggggtgga   6420
gggtttctgc tatctgagag atgggcagga gttgaggaca gcaggtccat ggggccaggg   6480
atttagcagt gaccttggaa gggccagtta ggagtccctt ctcataaggc acgaggcagg   6540
gcccttgggg acggtgggct cccaccctgg gggcttgccc gtgcactcag gcatgccacg   6600
cctcgttctg cctttctcag ggtgtgtctg cctgtcctac tgccacctgc catttcttgt   6660
tacagtttgt tccaccttct gttgtaagaa tgctagatga caacatttat aagaatgaga   6720
gcataaaatc tatacaaact aagagtaaac cagtttgcac agagggtgtg agaggctcct   6780
ctaaagggaa tgcctatggg ctgcagagcc tgggctgcat cctcttcagg ccgctggggg   6840
cctggcttgc tttctcttgc tgctgacttc tagagatgtg gtgtgttcct ttcattctgt   6900
cacagcggac atgtgcaagg aaggctttca gcaagtcaca ctgaaacatg caaaccaggg   6960
ggccaggtgt ccaggggaca cattgtaaag gagcttctgc ataaggcgca cagaatgggc   7020
ttcaccccac ctccttctcc cacgcgcctc ctggctgccc ctcagggtgg tcacattggc   7080
```

6955

```
ccatccagag tccttgtgca tctcctcctc ccactcctga actgggctcc ccgatgcagg   7140
ctccaatccc tcccccagag cccttctgtg cttcttctgg tcctccctgt tggtccacct   7200
tctccaggaa gctctcccag gccaggccag tgaaactcag cttcctacct cagagctctc   7260
tggcacccccc agcccacaca gcccatcagg cacttgccct ccgccctcag cctgcttcac   7320
acagagtggg gcccttcctt cctcagccag gacagggcac atcgtctgtc atctcccaca   7380
caccaagcac agctaggata gcaggtgcac acatagggtt gcataccgga ccctggctcc   7440
tcctgctccc aggctgggct ggcaggcagg ggccaggctg ggcatggggt ggcagcagcc   7500
tttgggctgg gcttacagtg agcaccgtgt ggggcttcag agaagactgc tccagccccg   7560
gcctcccagg agtctgagca tcctccgtgg cctttgcagg agacggggct caaggtgaac   7620
cagccagcgt cctttgccgt gcagctgaac ggtgcccggg gcgtgattga tgcccgggtg   7680
cacacaccct cggggggctgt ggaggagtgc tacgtctctg agctggacag tggtgagctg   7740
gccctgcccc tgccaactcc cttccgggct ggggccttct ggggagggga aggatggagg   7800
ctaagccacc aaccctttat ccacagacaa gcacaccatc cgcttcatcc cccacgagaa   7860
tggcgtccac tccatcgatg tcaagttcaa cggtgcccac atccctggaa gtcccttcaa   7920
gatccgcgtt ggggagcaga gccaggctgg ggacccaggc ttggtgtcag cctacggtcc   7980
tgggctcgag ggaggcacta ccggtgagtg cctggagctg gggaacaggg tgacttctgg   8040
gggtgcttgg ccactagtct ggtgctgctt tgctccagag gtaggggccc tgcttcctaa   8100
gccaggagtc cccacagagg ctgtccaggg agctggggcc cagtccctct tgggccacaa   8160
gcccttcctg ccctcagcct tgctacctct ggccccagg tgtgtcatca gagttcatcg   8220
tgaacaccct gaatgccggc tcggggggcct tgtctgtcac cattgatggc ccctccaagg   8280
tgcagctgga ctgtcgggag tgtcctgagg gccatgtggt cacttatact cccatggccc   8340
ctggcaacta cctcattgcc atcaagtacg gtggccccca gcacatcgtg ggcagccct   8400
tcaaggccaa ggtcactggt gagtgccagt ttggggggagg tccacccagc ctgcagccca   8460
gcccagcctg gagggctccg gtggccacgc acatctaggc catagtctgc ccccagacat   8520
catggtcagt ttaccagggc tagaggtggg cctggctcta cacagtacac gttctgtgga   8580
gtcgggcatg atcacgtaaa aatgccattc ttcctctcca tcgtggcccc tcactccttc   8640
agctctggcc tgcgctggct cctcaggctc tagcaccact ttcttccctc ctggcttccc   8700
atattcctcc gctccaagaa gacacagtcg gtattgagca agcttcccct cttgaggctg   8760
tctgtaggat gagttgggtg ggtgttcctt tgtaaagtgg ctcttaccct gtgagttagc   8820
ctgagttccc agacaaagcc tgcaaggatg agggacgcag catctgaggc cccagcccta   8880
gggtggagca ccagttggag ctggcagctc agggccctgg ctgggaatga ggctgtgctc   8940
ctagagtggc ccttggagga atttgagggg gagcctcaaa tgcaggcagt gagtcccaca   9000
gggtggcagt gctggccgag ggtcccctgc ctggggaaga acaggaagcc cttctgacta   9060
ggtttgtgcc ccctccaccc acccctcagg tccgaggctg tccggaggcc acagccttca   9120
cgaaacatcc acggttctgg tggagactgt gaccaagtcc tcctcaagcc ggggctccag   9180
ctacagctcc atccccaagt tctcctcaga tgccagcaag gtggtgactc ggggcccctgg   9240
gctgtcccag gccttcgtgg gccagaagaa ctccttcacc gtggactgca gcaaagcagg   9300
caggtggcgg ggggagggcg tctcccgggg tgtgagcaag aagccgtcag ggagcagggt   9360
gtgggtcaca gtaggggact ccctggtgtg agcctgtccc tctgcctccc tctccaggca   9420
ccaacatgat gatggtgggc gtgcacggcc ccaagacccc ctgtgaggag gtgtacgtga   9480
agcacatggg gaaccgggtg tacaatgtca cctacactgt caaggagaaa ggggactaca   9540
tcctcattgt caagtggggt gacgaaagtg tccctggaag cccccttcaaa gtcaaggtcc   9600
cttgaatccc aaaagtgcct ccccagcctc agccccacc tccagccaca cacacattac   9660
acacacacac acacacacac aaatgtgcca cacccagaca cgcacagaat cagacactac   9720
aaacacctgc cttgggggtg aagtgaaggc ccagcctccc cacccaccg cgccccaggg   9780
gttggaggac cttgtctgtg tcaggacagt gtccctccct gggaatgtga catgagggcc   9840
gactgggggcc aggctcaggg gcagaggctg ggacacaagg ggctggcgag ggctgcgagg   9900
ccagggaagc cctgagtttc tggcgggggct gagcagtggg ggagcattgt gttgtgggtg   9960
tctgtgtgtg aggtcaccct caaactgcac cgccggccag ataccctcct gaccccgagg  10020
acttggtctg gtctctctgg tggctacaac cccagagttt taaggacttg gaaaggaaag  10080
cacaatcaga gaagaaaaca gcccccgaac cagcaggagt ggcctggcac atggaccggc  10140
ctgagcgatg tgcactccac ccaagccagg ctcccagggg gcctgatttc tctctcactg  10200
tctctttttt taaaatggtt gcacggctct gccccatggg gggcctttt tacacactgc  10260
gaggcccagc tttctagggg acttttgcac atgtcatgca gctcagctgg gagctgctta  10320
ggtggaaaac tccaaataaa gtgcggctgt cgcagagggt tggc              10364
```

<400> 9380
```
cacagctgaa tgtgggcacc tccacggacg tgtcactgaa gatcaccgag agtgatctga    60
gccagctgac cgccagcatc cgtgccccct cgggcaacga ggagccctgc ctgctgaagc   120
gcctgcccaa ccggcacatt ggtgagcgtg gggcctcacg gggacctcag gggtggggggc   180
ccacaggatg ctctgcctaa cacccacttt ccacagggat ctccttcacc cccaaggagg   240
tcggggagca cgtggtgagc gtgcgcaaga gtggcaagca tgtcaccaac agccccttca   300
agatcctggt ggggccatct gagatcgggg acgccagcaa ggtgcgggtc tggggcaagg   360
ggctttccga gggacacaca ttccaggtgg cagagttcat cgtggacact cgcaatgcag   420
gtacctcctg ccccagagag cccccattcc agcgggtgcc tcccacaggc acttgtcctc   480
gtcctgccca gcaccccctt ggccgcactc tctcctccct gaaacttcct gaccagtctg   540
cgtcaggatt cgcattctgg ggccccttgc gggaaagtga atggccccgc atcagttctc   600
tccctttttaa gagaaagctc agctgtcctg agtttctgtc cctcccttgc tcactggaat   660
ccaagaggct taccttaggg aattttccag accgcctgtc ccgtggtgcc cccgctcctc   720
ccactgagcc atttttgtta gtggtcacta cacacatcgg tgcccattct gggtggagcc   780
tgcagtctgg ggagaggaaa gcattgtggc ttggccagcc taggactgag ggagatgtgt   840
tccttgcttt cccccaggtt atggggggctt ggggctgagt attgaaggcc caagcaaggt   900
ggacatcaac tgtgaggaca tggaggacgg gacatgcaaa gtcacctact gccccaccga   960
gcccggcacc tacatcatca acatcaagtt tgctgacaag cacgtgcctg gtaaggctct  1020
gggcagaggt cggtggcgag agacagggag gccaggaggc tggggctctg aggttcctga  1080
cccacccttt gtccccactt caggaagccc cttcactgtg aaggtgaccg gcgagggccg  1140
catgaaggag agcatcaccc ggcggagaca ggcaccttcc atcgccacca tcggcagcac  1200
ctgtgacctc aacctcaaga tcccaggtag aagcctggag gaccctgggt ggggcgggtg  1260
gtgggagagg gctggcccgg gccagagccc acctgtcggg cctccaccct gcttcctcac  1320
ccctcgcttc cctccctcac cctggctccc ttgaccacac aggaaactgg ttccagatgg  1380
tgtctgccca ggagcgcctg acacgcacct tcacacgcag cagccacacc tacacccgca  1440
cggagcgcac ggagatcagc aagacgcggg gcggggagac aaagcgcgag gtgcgggtgg  1500
aggagtccac ccaggtcggc ggggacccct tccctgctgt gtttggggac ttcctgggcc  1560
gggagcgcct gggatccttc ggcagcatca cccggcagca ggagggtgag caccgcacac  1620
tgggccggcc gggtcctcac ggcgggatgg gagggtgctg cggaccaggc ttgatgctgg  1680
cagactggcc ccgaaggcca gggcaggtct gagcagagga ggaggtttaa ctgatggggg  1740
agggaagggc cagggctagg aggaatccca gtgttgccct gacatccccc aaaccgggca  1800
ggtgaggcca gctctcagga catgactgca caggtgacca gcccatcggg caaggtggaa  1860
aacagcagag atcgtcgagg aaaaggacag cgcctacagc gtgcgctttg tgccccagga  1920
aatggggccc catacggtcg ctgtcaagta ccgtggccag cacgtgcccg gcagcccctt  1980
tcagttcact gtggggccgc tgggtgaagg tggtgcccac aaggtgcggg ccggaggcac  2040
agggctggag cgaggtgtgg ccggcgtgcc aggtaagggg caggtggcca ggagtgggga  2100
tgaagtcagg gcagccagtg tgaggggcga tgatgctgaa gtccactacc ttgcctgtcc  2160
ccagccgagt tcagcatctg gacccgggag gctggcgctg ggggcctgtc cattgctgtg  2220
gagggtccta gcaaagcgga gattgcattt gaggatcgca aagatggctc ctgcggcgtc  2280
tcctatgtcg tccaggaacc aggtgggcgt ccacactggc agtggggctg ggcctgcctg  2340
accttccaga ctgggtttct gcccactggc caggcaggag atgcttgggg ccacagaact  2400
cccctccccg gagccccctg ctcttcctct gccccgtctc cctctacccc acaccctcag  2460
aaacatgtgt ctgcctccag atctgagcgc tgaccacaga gcctttcctg ggataaggcc  2520
agggtgggga ggctcccgcc ctgccaacct ccatcccgga acctgtgctg actggtctct  2580
ctccccaggt gactatgagg tctccatcaa gttcaatgat gagcacatcc cagacagccc  2640
ctttgtggtg cctgtggcct ccctctcgga tgacgctcgc cgtctcactg tcaccagcct  2700
ccaggtttgt gcccagggtg ggggtggagg gtttctgcta tctgagagat gggcaggagt  2760
tgaggacagc aggtccatgg ggccagggat ttagcagtga ccttggaagg gccagttagg  2820
agtcccttct cataaggcac gaggcagggc ccttggggac ggtgggctcc caccctgggg  2880
gcttgcccgt gcactcaggc atgccacgcc tcgttctgcc tttctcaggg tgtgtctgcc  2940
tgtcctactg ccacctgcca tttcttgtta cagttgttc caccttctgt tgtaagaatg  3000
ctagatgaca acatttataa gaatgagagc ataaaatcta tacaaactaa gagtaaacca  3060
gtttgcacag agggtgtgag aggctcctct aaagggaatg cctatgggct gcagagcctg  3120
ggctgcatcc tcttcaggcc gctgggggc tggcttgctt tctcttgctg ctgacttcta  3180
gtagatgtgg tgtgttcctt tcattctgtc acagcggaca tgtgcaagga aggctttcag  3240
caagtcacac tgaaacatgc aaaccagggg gccaggtgtc caggggacac attgtaaagg  3300
agcttctgca taaggcgcac agaatgggct tcacccacc tccttctccc acgcgcctcc  3360
tggctgcccc tcagggtggt cacattggcc catccagagt ccttgtgcat ctcctcctcc  3420
cactcctgaa ctgggctccc cgatgcaggc tccaatccct cccccagagc ccttctgtgc  3480
ttcttctggt cctccctgtt ggtccacctt ctccaggaag ctctcccagg ccaggccagt  3540
```

```
gaaactcagc ttcctacctc agagctctct ggcacccca gcccacacag cccatcaggc    3600
acttgccctc cgccctcagc ctgcttcaca cagagtgggg cccttccttc ctcagccagg    3660
acagggcaca tcgtctgtca tctcccacac accaagcaca gctaggatag caggtgcaca    3720
cataggggttg cataccggac cctggctcct cctgctccca ggctgggctg gcaggcaggg    3780
gccaggctgg gcatggggtg gcagcagcct ttgggctggg cttacagtga gcaccgtgtg    3840
gggcttcaga gaagactgct ccagccccgg cctcccagga gtctgagcat cctccgtggc    3900
ctttgcagga gacggggctc aaggtgaacc agccagcgtc ctttgccgtg cagctgaacg    3960
gtgcccgggg cgtgattgat gcccgggtgc acacaccctc gggggctgtg gaggagtgct    4020
acgtctctga gctggacagt ggtgagctgg ccctgcccct gccaactccc ttccgggctg    4080
gggccttctg gggaggggaa ggatggaggc taagccacca acccttatc cacagacaag    4140
cacaccatcc gcttcatccc ccacgagaat ggcgtccact ccatcgatgt caagttcaac    4200
ggtgcccaca tccctggaag tcccttcaag atccgcgttg gggagcagag ccaggctggg    4260
gacccaggct tggtgtcagc ctacggtcct gggctcgagg gaggcactac cggtgagtgc    4320
ctggagctgg ggaacagggt gacttctggg ggtgcttggc cactagtctg gtgctgcttt    4380
gctccagagg taggggccct gcttcctaag ccaggagtcc ccacagaggc tgtccaggga    4440
gctggggccc agtccctctt gggccacaag cccttcctgc cctcagcctt gctacctctg    4500
gcccccaggt gtgtcatcag agttcatcgt gaacaccctg aatgccggct cggggggcctt    4560
gtctgtcacc attgatggcc cctccaaggt gcagctggac tgtcgggagt gtcctgaggg    4620
ccatgtggtc acttatactc ccatggcccc tggcaactac ctcattgcca tcaagtacgg    4680
tggccccag cacatcgtgg gcagcccctt caaggccaag gtcactggtg agtgccagtt    4740
tgggggaggt ccacccagcc tgcagcccag cccagcctgg agggctccgg tggccacgca    4800
catctaggcc atagtctgcc cccagacatc atggtcagtt taccagggct agaggtgggc    4860
ctggctctac acagtacacg ttctgtggag tcgggcatga tcacgtaaaa atgccattct    4920
tcctctccat cgtggcccct cactccttca gctctggcct gcgctggctc ctcaggctct    4980
agcaccactt tcttccctcc tggcttccca tattcctccg ctccaagaag acacagtcgg    5040
tattgagcaa gcttcccctc ttgaggctgt ctgtaggatg agttgggtgg gtgttccttt    5100
gtaaagtggc tcttaccctg tgagttagcc tgagttccca gacaaagcct gcaaggatga    5160
gggacgcagc atctgaggcc ccagccctag ggtggagcac cagttggagc tggcagctca    5220
gggccctggc tgggaatgag gctgtgctcc tagagtggcc cttggaggaa tttgaggggg    5280
agcctcaaat gcaggcagtg agtcccacag ggtggcagtg ctggccgagg gtcccctgcc    5340
tggggaagaa caggaagccc ttctgactag gtttgtgccc cctccaccca cccctcaggt    5400
ccgaggctgt ccggaggcca cagccttcac gaaacatcca cggttctggt ggagactgtg    5460
accaagtcct cctcaagccg gggctccagc tacagctcca tccccaagtt ctcctcagat    5520
gccagcaagg tggtgactcg gggccctggg ctgtcccagg ccttcgtggg ccagaagaac    5580
tccttcaccg tggactgcag caaagcaggc aggtggcggg gggagggcgt ctcccggggt    5640
gtgagcaaga agccgtcagg gagcagggtg tgggtcacag tagggggactc cctggtgtga    5700
gcctgtccct ctgcctccct ctccaggcac caacatgatg atggtgggcg tgcacggccc    5760
caagaccccc tgtgaggagg tgtacgtgaa gcacatgggg aaccgggtgt acaatgtcac    5820
ctacactgtc aaggagaaag gggactacat cctcattgtc aagtggggtg acgaaagtgt    5880
ccctggaagc cccttcaaag tcaaggtccc ttgaatccca aaagtgcctc cccagcctca    5940
gcccccacct ccagccacac acacattaca cacacacaca cacacacaca aatgtgccac    6000
acccagacac gcacagaatc agacactaca aacacctgcc ttgggggtga agtgaaggcc    6060
cagcctcccc accccaccgc gccccagggg ttggaggacc ttgtctgtgt caggacagtg    6120
tccctccctg ggaatgtgac atgagggccg actggggcca ggctcagggg cagaggctgg    6180
gacacaaggg gctggcgagg gctgcgaggc cagggaagcc ctgagtttct ggcggggctg    6240
agcagtgggg gagcattgtg ttgtgggtgt ctgtgtgtga ggtcaccctc aaactgcacc    6300
gccggccaga taccctcctg accccgagga cttggtctgg tctctctggt ggctacaacc    6360
ccagagtttt aaggacttgg aaaggaaagc acaatcagag aagaaaacag ccccgaacc    6420
agcaggagtg gcctggcaca tggaccggcc tgagcgatgt gcactccacc caagccaggc    6480
tcccaggggg cctgatttct ctctcactgt ctcttttttt aaaatggttg cacggctctg    6540
ccccatgggg ggcctttttt acacactgcg aggcccagct ttctagggga cttttgcaca    6600
tgtcatgcag ctcagctggg agctgcttag gtggaaaact ccaaataaag tgcggctgtc    6660
gcagagggtt ggc                                                      6673
```

<210> 9381
<211> 10368
<212> DNA
<213> Homo sapiens

<400> 9381

```
ccccctactcg  cccttccgca  tccatgctct  gcccactggg  gatgccagca  agtgcctcgt     60
cacaggtggg  tgcccacccg  ctgcccgtgc  cctgctcacc  acccagcccc  tcaaagcccc    120
tccagaaccc  tggcctggtc  cccaggggtc  tgctggtcgg  agagcacaca  tgccctagcc    180
ctggcccctc  cctccctcac  ccccgcccaa  tgcccagcc   cacgttgagc  accgcctggc    240
ctcacactct  tctctctttc  cagtgtccat  tggaggccat  ggcctgggtg  agtgcccttt    300
ctctcctctt  cttggtgtgg  gccagggtgg  ttggcggtag  ggggcgggca  gcgggaacag    360
agagggctgg  ctccagccca  ccagctccct  gagcaggatc  tcccgcatgg  caggtgcctg    420
cctgggccct  cgaatccaga  ttgggcagga  gacggtgatc  acggtggatg  ccaaggcagc    480
cggtgagggg  aaggtgacat  gcacggtgtc  cacgccggat  ggggcagagc  tcgatgtgga    540
tgtggttgag  aaccatgacg  gtacctttga  catctactac  acagcgcccg  agccgggcaa    600
gtacgtcatc  accatccgct  cggggggtga  gcacatcccc  aacagcccct  tccacgtgct    660
ggtaagttct  gtagccacag  caagactaga  tggctgggga  ggggggcctg  gcccttttag    720
cagcagcagg  gatcccagat  aactgtcccc  aaggaatccc  acttctctga  gggctcctgg    780
ggccagagtg  ctccaggatg  gagccttaac  tttccccaca  gcacccccga  agtgggagga    840
gagcatggcc  ctgccccctg  cccagtgctg  tcagctgtct  ctggaggaac  ccgctgtgct    900
ctccaccatc  cccagctcca  tctccccaga  ggctgccctg  caggaggatg  aacacccaaa    960
ttatcaccca  gcatttcagg  ttcctgggcc  attctctgag  tcagccccta  ggcctgtgag   1020
gctgccacac  cctgtgcccc  cgtgccttgc  ctccccaggc  gtgtgacccc  ctgccgcacg   1080
aggaggagcc  ctctgaagtg  ccacagctgc  gccagcccta  cgctcctccc  cggcccggcg   1140
cccgccccac  acactgggta  ctgcgcctcc  caccaggcga  tgtcctcctc  ctcctcccct   1200
tccttcattt  cttctctcta  ctcctctgca  gccagggcgg  ggacatggtc  tgggggcctc   1260
ttggggagca  ggcaagagtt  aggctgggca  gatggaaccc  cacttgggca  cagcactcct   1320
tctcttgcag  ctgacgcacc  tctcctgcca  cgctggtttc  atgattaact  accttgttct   1380
ttcctcactc  tccagcttca  gtcatagcat  gggtcaaact  cctgggcctt  ccccagtcac   1440
tgactgttcc  ctctcacctg  ctgcaggcca  cagaggagcc  agtggtgcct  gtggagccaa   1500
tggagtccat  gctgaggccc  ttcaacctgg  tcatcccctt  cgcggtgcag  aaaggggagc   1560
tcacaggtac  tgccctgtgg  ctcccaggca  tgagggctga  ggggagaaac  cctcttccag   1620
gcccagtcct  gtgtcttaat  gatgaaaaca  aaggcccaga  gagaggaagt  gagctctacc   1680
cagggtcaca  cagcaagttg  ggcagagcca  gaactcaggt  gcaagccatc  tgtccccagt   1740
tcagggctca  ggccactgcc  acaggctgtc  tcttgatgcc  tggcttctcg  ggtggcagca   1800
gaagcactca  ggaccaggcc  tgggacagca  ggggaggttg  cagtggggga  aaccagggtc   1860
tccacgtaac  tgtgtctgcc  ctgcaggaga  ggtgcggatg  ccctcgggga  agacggcacg   1920
gcccaacatc  accgacaaca  aggacggcac  catcacggtg  aggtatgcac  ccactgagaa   1980
aggcctgcac  cagatgggga  tcaagtatga  cggcaaccac  atccctggtg  agttaggggc   2040
tgggctgggc  tggggcttgg  gtgagaggag  caggccgtag  cttcagtcct  gccttccctc   2100
tttcaacaaa  tatttattga  gcacccgctg  tgtgcagaca  ccaggcgagg  ccccagggag   2160
gcttataccc  tggtgggaag  cagacctcca  ccagctgggt  ccctacggca  cagacggagg   2220
gggttggcag  ggaggctgct  ggaaggtgct  ggggccaagg  tgggctcaga  taatccctga   2280
tgctgaccca  gccccctttt  tctctgtatc  cccagggagc  cccttacagt  tctatgtgga   2340
tgccatcaac  agccgccatg  tcagtgccta  tgggccaggc  ctgagccatg  gcatggtcaa   2400
caagccagcc  accttcacta  ttgtcaccaa  agatgctgga  gaaggtgagg  gagctgcagg   2460
tcgcaggctg  gggtggagac  tcaccagggg  cagggtgag   ggcaggacct  ctgatcttgg   2520
ccacacctcc  acctacaggg  ggtctgtcac  tggccgtgga  gggcccatcc  aaggcagaga   2580
tcacctgtaa  ggacaacaag  gatggcacct  gcaccgtgtc  ctatctgccg  actcgcctg    2640
gagactacag  catcatcgtg  cgcttcgatg  acaagcacat  cccggggagc  cccttcacag   2700
ccaagatcac  aggtgaggcg  ggtgtatggg  catgtacagc  ccatgaggca  cacacaccgc   2760
atacagtgca  ctcatgtgca  agcccagccc  gttcaagtca  ctcgtgacat  tagggcagag   2820
gcccttcaag  gtgtgagggg  tcatatttttg  ataaatgtaa  aaacactctg  ttctccacgg   2880
cagctaagaa  gcagtcagcc  actccttgtg  cctgaaaaca  cattgcctca  tttagtcttt   2940
gaagtcattt  gtttgtttt   tgtttttgag  agggagtctt  gctctgtcac  ccaggctgga   3000
gtacagtggc  acgatctcgg  ctcactgcaa  cctccgcctc  ccgggttcat  gccattcttc   3060
tgcctcagcc  tcccaagtag  ctgggactcc  aggcgcccgc  caccatgcct  ggctattttt   3120
tgtattttta  gtagagacag  ggtttcaccg  tgttagccag  gatggtctcg  atctcctgac   3180
cttgtgatcc  acctgcctcg  gcctcccaaa  gtgctgggat  tacaggtgtg  agccaccacg   3240
cccagcatga  agtcactctt  aagaagttag  ggcacggata  atcctttttga  tagataagga   3300
accctgtcc   cagagaggcc  aagcaacatg  attacagcca  cacagcgagg  aagggtctg    3360
ggcggtccag  tctagtgttt  tgttatcaca  acatcatgtg  actcagggtt  aaaatgcagg   3420
aggtttcctt  tagggattta  gcccacaagg  actgaggcag  ccacagtgga  attggggtac   3480
aggcccctct  tagtctctgg  cagctcacat  gtgagtgcag  actgcacttt  ccaggccttg   3540
ggcctccgtg  cacctgggag  tggccccccg  tgtctgttga  gtccaggggg  ggctgctcag   3600
gagggttcct  gagccctgtg  agggcagggc  ctgcctggag  tcatagcagc  ctgatgcccc   3660
```

6959

```
aactcccccca ccaggtgatg actccatgag gacctcacag ctgaatgtgg gcacctccac   3720
ggacgtgtca ctgaagatca ccgagagtga tctgagccag ctgaccgcca gcatccgtgc   3780
cccctcgggc aacgaggagc cctgcctgct gaagcgcctg cccaaccggc acattggtga   3840
gcgtggggcc tcacggggac ctcaggggtg ggggcccaca ggatgctctg cctaacaccc   3900
actttccaca gggatctcct tcaccccccaa ggaggtcggg gagcacgtgg tgagcgtgcg   3960
caagagtggc aagcatgtca ccaacagccc cttcaagatc ctggtggggc catctgagat   4020
cggggacgcc agcaaggtgc gggtctgggg caaggggctt tccgagggac acacattcca   4080
ggtggcagag ttcatcgtgg acactcgcaa tgcaggtacc tcctgcccca gagagccccc   4140
attccagcgg gtgcctccca caggcacttg tcctcgtcct gcccagcacc cccttggccg   4200
cactctctcc tccctgaaac ttcctgacca gtctgcgtca ggattcgcat tctggggccc   4260
cttgcgggaa agtgaatggc cccgcatcag ttctctccct tttaagagaa agctcagctg   4320
tcctgagttt ctgtccctcc cttgctcact ggaatccaag aggcttacct tagggaattt   4380
tccagaccgc ctgtcccgtg gtgcccccgc tcctcccact gagccatttt tgttagtggt   4440
cactacacac atcggtgccc attctgggtg gagcctgcag tctggggaga ggaaagcatt   4500
gtggcttggc cagcctagga ctgagggaga tgtgttcctt gctttccccc aggttatggg   4560
ggcttggggc tgagtattga aggcccaagc aaggtggaca tcaactgtga ggacatggag   4620
gacgggacat gcaaagtcac ctactgcccc accgagcccg gcacctacat catcaacatc   4680
aagtttgctg acaagcacgt gcctggtaag gctctgggca gaggtcggtg gcgagagaca   4740
gggaggccag gaggctgggg ctctgaggtt cctgacccac cctttgtccc cacttcagga   4800
agcccttca ctgtgaaggt gaccggcgag ggccgcatga aggagagcat cacccggcgg   4860
agacaggcac cttccatcgc caccatcggc agcacctgtg acctcaacct caagatccca   4920
ggtagaagcc tggaggaccc tgggtggggc gggtggtggg agagggctgg cccgggccag   4980
agcccacctg tcgggcctcc accctgcttc ctcacccctc gcttccctcc ctcaccctgg   5040
ctcccttgac cacacaggaa actggttcca gatggtgtct gcccaggagc gcctgacacg   5100
caccttcaca cgcagcagcc acacctacac ccgcacggag cgcacggaga tcagcaagac   5160
gcggggcggg gagacaaagc gcgaggtgcg ggtggaggag tccacccagg tcggcgggga   5220
ccccttccct gctgtgtttg gggacttcct gggccgggag cgcctgggat ccttcggcag   5280
catcacccgg cagcaggagg gtgagcaccg cacactgggc cggccgggtc ctcacggcgg   5340
gatgggaggg tgctgcggac caggcttgat gctggcagac tggccccgaa ggccagggca   5400
ggtctgagca gaggaggagg tttaactgat gggggaggga agggccaggg ctaggaggaa   5460
tcccagtgtt gccctgacat cccccaaacc ctgcaggtga ggccagctct caggacatga   5520
ctgcacaggt gaccagccca tcgggcaagg tggaagccgc agagatcgtc gagggcgagg   5580
acagcgccta cagcgtgcgc tttgtgcccc aggaaatggg gccccatacg gtcgctgtca   5640
agtaccgtgg ccagcacgtg cccggcagcc cctttcagtt cactgtgggg ccgctgggtg   5700
aaggtggtgc ccacaaggtg cgggccggag gcacagggct ggagcgaggt gtggccggcg   5760
tgccaggtaa ggggcaggtg gccaggagtg gggatgaagt acagggcagc cagtgtgagg   5820
ggcgatgatg ctgaagtcca ctaccttgcc tgtccccagc cgagttcagc atctggaccc   5880
gggaggctgg cgctgggggc ctgtccattg ctgtggaggg tcctagcaaa gcggagattg   5940
catttgagga tcgcaaagat ggctcctgcg gcgtctccta tgtcgtccag gaaccaggtg   6000
ggcgtccaca ctggcagtgg ggctgggcct gcctgacctt ccagactggg tttctgccca   6060
ctggccaggc aggagatgct tggggccaca gaactcccct ccccggagcc ccctgctctt   6120
cctctgcccc gtctccctct accccacacc ctcagaaaca tgtgtctgcc tccagatctg   6180
agcgctgacc acagagcctt tcctgggata aggccagggt ggggaggctc ccgccctgcc   6240
aacctccatc ccggaacctg tgctgactgg tctctctccc caggtgacta tgaggtctcc   6300
atcaagttca atgatgagca catcccagac agcccctttg tggtgcctgt ggcctccctc   6360
tcggatgacg ctcgccgtct cactgtcacc agcctccagg tttgtgccca gggtgggggt   6420
ggagggtttc tgctatctga gagatgggca ggagttgagg acagcaggtc catggggcca   6480
gggatttagc agtgaccttg gaagggccag ttaggagtcc cttctcataa ggcacgaggc   6540
agggcccttg gggacggtgg gctcccaccc tggggggcttg cccgtgcact caggcatgcc   6600
acgcctcgtt ctgcctttct cagggtgtgt ctgcctgtcc tactgccacc tgccatttct   6660
tgttacagtt tgttccacct tctgttgtaa gaatgctaga tgacaacatt tataagaatg   6720
agagcataaa atctatacaa actaagagta aaccagtttg cacagagggt gtgagaggct   6780
cctctaaagg gaatgcctat gggctgcaga gcctgggctg catcctcttc aggccgctgg   6840
gggcctggct tgctttctct tgctgctgac ttctagagat gtggtgtgtt cctttcattc   6900
tgtcacagcg gacatgtgca aggaaggctt tcagcaagtc acactgaaac atgcaaacca   6960
gggggccagg tgtccagggg acacattgta aaggagcttc tgcataaggc gcacagaatg   7020
ggcttcaccc cacctccttc tcccacgcgc ctcctggctg cccctcaggg tggtcacatt   7080
ggcccatcca gagtccttgt gcatctcctc ctcccactcc tgaactgggc tccccgatgc   7140
aggctccaat ccctccccca gagcccttct gtgcttcttc tggtcctccc tgttggtcca   7200
ccttctccag gaagctctcc caggccaggc cagtgaaact cagcttccta cctcagagct   7260
ctctggcacc cccagcccac acagcccatc aggcacttgc cctccgccct cagcctgctt   7320
```

6960

```
cacacagagt ggggcccttc cttcctcagc caggacaggg cacatcgtct gtcatctccc     7380
acacaccaag cacagctagg atagcaggtg cacacatagg gttgcatacc ggaccctggc     7440
tcctcctgct cccaggctgg gctggcaggc aggggccagg ctgggcatgg ggtggcagca     7500
gcctttgggc tgggcttaca gtgagcaccg tgtggggctt cagagaagac tgctccagcc     7560
ccggcctccc aggagtctga gcatcctccg tggcctttgc aggagacggg gctcaaggtg     7620
aaccagccag cgtcctttgc cgtgcagctg aacggtgccc ggggcgtgat tgatgcccgg     7680
gtgcacacac cctcgggggc tgtggaggag tgctacgtct ctgagctgga cagtggtgag     7740
ctggccctgc ccctgccaac tcccttccgg gctggggcct tctggggagg ggaaggatgg     7800
aggctaagcc accaaccctt tatccacaga caagcacacc atccgcttca tcccccacga     7860
gaatggcgtc cactccatcg atgtcaagtt caacggtgcc cacatccctg gaagtccctt     7920
caagatccgc gttggggagc agagccaggc tggggaccca ggcttggtgt cagcctacgg     7980
tcctgggctc gagggaggca ctaccggtga gtgcctggag ctggggaaca gggtgacttc     8040
tgggggtgct tggccactag tctggtgctg ctttgctcca gaggtagggg ccctgcttcc     8100
taagccagga gtccccacag aggctgtcca gggagctggg gcccagtccc tcttgggcca     8160
caagcccttc ctgccctcag ccttgctacc tctggccccc aggtgtgtca tcagagttca     8220
tcgtgaacac cctgaatgcc ggctcggggg ccttgtctgt caccattgat ggcccctcca     8280
aggtgcagct ggactgtcgg gagtgtcctg agggccatgt ggtcacttat actcccatgg     8340
cccctggcaa ctacctcatt gccatcaagt acggtggccc ccagcacatc gtgggcagcc     8400
ccttcaaggc caaggtcact ggtgagtgcc agtttggggg aggtccaccc agcctgcagc     8460
ccagcccagc ctggagggct ccggtggcca cgcacatcta ggccatagtc tgcccccaga     8520
catcatggtc agtttaccag ggctagaggt gggcctggct ctacacagta cacgttctgt     8580
ggagtcgggc atgatcacgt aaaaatgcca ttcttcctct ccatcgtggc ccctcactcc     8640
ttcagctctg gcctgcgctg gctcctcagg ctctagcacc actttcttcc ctcctggctt     8700
cccatattcc tccgctccaa gaagacacag tcggtattga gcaagcttcc cctcttgagg     8760
ctgtctgtag gatgagttgg gtgggtgttc ctttgtaaag tggctcttac cctgtgagtt     8820
agcctgagtt cccagacaaa gcctgcaagg atgagggacg cagcatctga ggccccagcc     8880
ctagggtgga gcaccagttg gagctggcag ctcagggccc tggctgggaa tgaggctgtg     8940
ctcctagagt ggcccttgga ggaatttgag ggggagcctc aaatgcaggc agtgagtccc     9000
acagggtggc agtgctggcc gagggtcccc tgcctgggga agaacaggaa gcccttctga     9060
ctaggtttgt gcccctcca cccaccctc aggtccgagg ctgtccggag gccacagcct      9120
tcacgaaaca tccacggttc tggtggagac tgtgaccaag tcctcctcaa gccggggctc     9180
cagctacagc tccatcccca agttctcctc agatgccagc aaggtggtga ctcgggggccc    9240
tgggctgtcc caggccttcg tgggccagaa gaactccttc accgtggact gcagcaaagc     9300
aggcaggtgg cggggggagg gcgtctcccg gggtgtgagc aagaagccgt cagggagcag     9360
ggtgtgggtc acagtagggg actccctggt gtgagcctgt ccctctgcct ccctctccag     9420
gcaccaacat gatgatggtg ggcgtgcacg gccccaagac cccctgtgag gaggtgtacg     9480
tgaagcacat ggggaaccgg gtgtacaatg tcacctacac tgtcaaggag aaagggggact    9540
acatcctcat tgtcaagtgg ggtgacgaaa gtgtccctgg aagcccttc aaagtcaagg      9600
tcccttgaat cccaaaagtg cctccccagc ctcagccccc acctccagcc acacacacat     9660
tacacacaca cacacacaca cacaaatgtg ccacacccag acacgcacag aatcagacac     9720
tacaaacacc tgccttgggg gtgaagtgaa ggcccagcct ccccacccca ccgcgcccca     9780
ggggttggag gaccttgtct gtgtcaggac agtgtccctc cctgggaatg tgacatgagg     9840
gccgactggg gccaggctca ggggcagagg ctgggacaca aggggctggc gagggctgcg     9900
aggccaggga agccctgagt ttctggcggg gctgagcagt ggggagcat tgtgttgtgg      9960
gtgtctgtgt gtgaggtcac cctcaaactg caccgccggc cagataccct cctgaccccg    10020
aggacttggt ctggtctctc tggtggctac aaccccagag ttttaaggac ttggaaagga    10080
aagcacaatc agagaagaaa acagcccccg aaccagcagg agtggcctgg cacatggacc    10140
ggcctgagcg atgtgcactc cacccaagcc aggctcccag gggggcctga tttctctctc    10200
actgtctctt tttttaaaat ggttgcacgg ctctgcccca tggggggcct tttttacaca    10260
ctgcgaggcc cagctttcta ggggactttt gcacatgtca tgcagctcag ctgggagctg    10320
cttaggtgga aaactccaaa taaagtgcgg ctgtcgcaga gggttggc               10368
```

<210> 9382
<211> 276
<212> DNA
<213> Homo sapiens

<400> 9382
```
gagagggagt cttgctctgt cacccaggct ggagtacagt ggcacgatct cggctcactg      60
caacctccgc ctcccgggtt catgccattc ttctgcctca gcctcccaag tagctgggac     120
```

```
tccaggcgcc cgccaccatg cctggctatt ttttgtattt ttagtagaga cagggtttca      180
ccgtgttagc caggatggtc tcgatctcct gaccttgtga tccacctgcc tcggcctccc      240
aaagtgctgg gattacaggt gtgagccacc acgccc                                276


<210> 9383
<211> 819
<212> DNA
<213> Homo sapiens

<400> 9383
gaagtaaggc aaaactgaga ctcatgggtg tggtctttga cagtgaaatc ttttagctct       60
tgcaagatca catagaaaat ttcaccaagt tctaacatcc agcaaaatgg agaacatgta      120
ctggggacct ttgggtttaa ccagtgagac tgtcttgttt atcctgttgc atttagcctt      180
ccagcttatg gaaaaataca aaattcaaat tctaacactg ctggatttat gatatttaag      240
gtttctatta tatcagctgc ctggatggag cacagaaaca gcgtagtaca atatgctatg      300
ggtatattca tgaccaaagt ttacaatgtg gaaggagaat agaaatgcaa gaggtcagtt      360
ggggaattag ctgcttgtgt tatataactc cttaaaagtg gaaaatgatc acaagtaaat      420
gtgagtagtg acagttctct tccatttcct ttcttcaggt aaggaaaaca cacttaatat      480
ttttgagtgt ctttaaagat cttcctaacc atccaaaaga gaagatgtct tatttatgtg      540
tatatgtcgt gttgttgact gatttttttg cttttactc ctgatgtgtt ttgtgggtga      600
gaaggcaagc atgtaactaa gatacagaaa agaccaagat gtagtggggc acagtggctt      660
gacgcctata atctcaacta ctcagaaggc tgaggtggaa ggattgcttg aggcgaggag      720
tccaggctgc agtgggctat gattgcaccg ccacacttgc tgcactctac ccttggggga      780
cagagtgaag ctctgtctca aaaaaaaaac aaaaaacaa                             819


<210> 9384
<211> 819
<212> DNA
<213> Homo sapiens

<400> 9384
gaagtaaggc aaaactgaga ctcatgggtg tggtctttga cagtgaaatc ttttagctct       60
tgcaagatca catagaaaat ttcaccaagt tctaacatcc agcaaaatgg agaacatgta      120
ctggggacct ttgggtttaa ccagtgagat tgtcttgttt atcctgttgc atttagcctt      180
ccagcttatg gaaaaataca aaattcaaat tctaacactg ctggatttat gatatttaag      240
gtttctatta tatcagctgc ctggatggag cacagaaaca gcgtagtaca atatgctatg      300
ggtatattca tgaccaaagt ttacaatgtg gaaggagaat agaaatgcaa gaggtcagtt      360
ggggaattag ctgcttgtgt tatataactc cttaaaagtg gaaaatgatc acaagtaaat      420
gtgagtagtg acagttctct tccatttcct ttcttcaggt aaggaaaaca cacttaatat      480
ttttgagtgt ctttaaagat cttcctaacc atccaaaaga gaagatgtct tatttatgtg      540
tatatgtcgt gttgttgact gatttttttg cttttactc ctgatgtgtt ttgtgggtga      600
gaaggcaagc atgtaactaa gatacagaaa agaccaagat gtagtggggc acagtggctt      660
gacgcctata atctcaacta ctcagaaggc tgaggtggaa ggattgcttg aggcgaggag      720
tccaggctgc agtgggctat gattgcaccg ccacacttgc tgcactctac ccttggggga      780
cagagtgaag ctctgtctca aaaaaaaaac aaaaaacaa                             819


<210> 9385
<211> 311
<212> DNA
<213> Homo sapiens

<400> 9385
gaagggtcta ctgaaaatag gttgctaaca ttgacaacaa agtattttaa gtcattgcag       60
taaggaatta ctggaaattg agtagacaaa gaaaattaat atgagttcca ttttgatggt      120
tacttagcaa gttgaactta tgagagtctt tgaaatagtt gcagtatgag aattgttcta      180
ttgaacagcg aaacaaccca atcaggtaat agttttttcca gagagtgact tgctataagg      240
gacagaagtt agagacttag attctttcaa aataaaggat ttttttaat tgcttgaaga      300
aggatttttg g                                                          311
```

6962

<210> 9386
<211> 86
<212> DNA
<213> Homo sapiens

<400> 9386
tttgtttttg ttttttgaga tggagtctct ctctgtcacc caggctggag tgcagtggcg   60
cgatcttgtc tcactgcaag ctccgc   86

<210> 9387
<211> 86
<212> DNA
<213> Homo sapiens

<400> 9387
tttgtttttg ttttttgaga tggagtctct ctctgtcacc caggctggag tgcagtggcg   60
cgatcttgtc tcactgcaag ctccgc   86

<210> 9388
<211> 6943
<212> DNA
<213> Homo sapiens

<400> 9388
agggtacttg acatgtccac ttggatgttt gataatcatt tcaaacttaa catattcaaa   60
acagaactct taatttctac ccacgcccta acctacacaa acactggaaa ctgtccatct   120
cccaattatt cttatctcaa taaatgaaat gacaccacca gccatcaacc agggatcctg   180
tacctcacct tccacatcca aactatcaaa agctcctcct gttttatgcc caatcagata   240
tcgagtcatt tcacctcttt ctgtctcctc tgctacttct ctcagacatg ttgcttcaat   300
ttctcacctg aactactaca ttagcctcct acctggctct gctttcattc ctgcctccct   360
gcagttcatt cttacagaga atctagaaaa agctcttcaa aagcaacaat cagatgtcac   420
tctcctactt tctaaaaact tttaaagagg acctcttctt ctgccagtat aacagacttt   480
gtactccaaa ggatatctct gttgcatttt agaactccta ggaagtaatg aaaatatcta   540
agaaaaaaaa tacaagtagc taagtgcata tatgtcaaca gtaaacaagc cagaaaaggc   600
agaattggcc atcccttgtg tttgtgtgtg acggtcatgt gggggtgcaa atggggaccg   660
tactgcaact cccagtttaa gcctgggatt ctagaaggga gataaaatag cccaggttgg   720
tagtaccact aaattccaga taaagcaaat gtaatttagg cttctagttt ttttttcacag   780
attgggatct tgagctttca aaaaagatta tcaaacaagg aaacaaacca ccgtgagtga   840
aaatcagcaa aactagcgtt aatatattaa ttactccttc cccaccaagg gctttagatg   900
tttgaagtat cagataagaa gaaactagac tacctttatat aaagaaaaat taacttaaat   .960
atagactaca aaaatggtga atggtgaaca acaatggtct ctcacaatca ccaggcactt   1020
ctgaaaaaga gctaaagaaa accttcagta ataaaaaaaa attatcaaaa aatttagtgg   1080
ataagctttt ttgtaatgga ctaattaatg aactggaaaa taaaactaaa atagtttcat   1140
gcaatggagc acagacaaag agatggaact ataaggaaga gaggttaata agtttggagg   1200
gcagaataag caagcctaac taaagcctat ttagagcgtg aaaggcaaca aaaatatgca   1260
gaatggagat gagacaatgt ttaaagagat tgtggctcag aattttcttt tttttttaag   1320
tgaagagttt tatctttgt gtttttgtt tgtttgtttt ctttgtttt ttttttactg   1380
ttattatact ttaagtttta gggtacatgt gcacgacgtg cagcttcgtt acatacgtat   1440
acatgtgcca tgttggtgtg ctgcacccat taactcgtca tttagcatta ggtatatctc   1500
ctaatgctat ccctccccc tccccccacc ccacaacagt ccctggtgtg tgttgttccc   1560
cttcctgtgt ccatgtgttc tcattgttcc attcccacct atgagtgaga acatgcggtg   1620
tttggttttt tgtccttgtg atagtttgct gagaataatg gtttccaact tgatccatgt   1680
ccctacaaag gacatgaact catcattttt tatggctgca tagtattcca tggtgtatat   1740
gtgccacatt ttcttaatcc agtctatcat tgttggacat ttgggttggt accaagtctt   1800
tgctattgtg aatagtgctg caataaacat acgtgtgcat gtgtctttat agcagcatga   1860
tttataatcc tttgggtata tacccagtaa tgggatggct gggtcaaatg gtatttctag   1920
tcctagatcc ctgaggaatc accacactga cttccacaat ggttgaacta gtttacagtc   1980

```
ctaccaacag tgtaaaagtg ttcctatttc tccacatcct ctccagcacc tgttgtttcc    2040
tgacttttta atgatcgcca ttctaactgg tttgagatgg tatctccttg tggttttgat    2100
ttgtattcct ctgatggcca gtgatgatga gcattttttc gtgtgtcttt tggctgcata    2160
aatgtcttct tttgagaagt gtctgttcat atcctttgcc cacttgttga tggggttgtt    2220
tgtttttttc ttgtaaattt gttggagttc attgtagatt ctggatatta gccctttgtc    2280
agatgagtag cttgcaaaac ttttctcccg ttctgtaggt tgcctgttca ctctgatggt    2340
agtttctttt gctgtgcaga agctctttag tttaattaga tcccatttgt caattttgtc    2400
ttttgttgcc attgcttttg gtgtttcaga catgaagtcc ttgcccatgc ctgtgtcctg    2460
aatggtaatg cctaagtttt cttctagggt ttttatggtt ttaggtctaa catttaagtc    2520
tttaatccat cttgaattaa tttttgtata aggtgtaagg aagggatcca gtttcagctt    2580
tctacatatg gctaaccagt tttcccagca ccattatta aataggaat cctttcccca    2640
tttcttgttt ttgtcaggtt tgtcaaagat cagatagttg tagatatgcg gcattatttc    2700
tgaggactct gttctgttcc attgatctat atgtctgtct tggtaccagt accatgctgt    2760
tttggttact gtagccttgt agtatagttt gaagtcagct agtgtgatgc ctccagcttt    2820
gttcttttgg cttaggattg acttggcgat gcgggctctt ttttggttcc atatgaactt    2880
gaaagtagtt ttttccagtt ctgtgaagaa agtcattggt agcttgatgg ggatggcatt    2940
gaatctataa attaccttgg gcagtatggc cattttcaca atattgattc ttcctaccca    3000
tgagcatgga atgttcttcc atttgtttat atcctctttt atttcactga gcagtggttt    3060
gtagttctcc ttgaagagct ccttcatatc ccttgtaagt tggattccca ggtattttat    3120
tctctttgaa gcaattgtga atgggagttc actcatgatt tggctctctg tttgtctgtt    3180
attggtgtat aagaatgctt gtggattttg tacattgatt ttgtatcctg agactttgct    3240
gaagttgctt atcagcttaa ggagattttg tgctgagaca gtggggtttt ctagatatac    3300
agtcatgtca tctgcaaaga gggacaattt gacttcctct tttcctaatt gaatacccctt    3360
tatttccttc tcctgcctaa ttgccctggc cagaacttcc aacactatgt tgaataggag    3420
tggtgagaac gggcatccct gtcttgtgcc agttttcaaa gggaatgctt ccagttttg    3480
cccattcagt atgatattgg ctgtgggttt gtcatagata gctcttatta ttttgagata    3540
cgtcccatca atccctaatt tattgagagt ttttagcatg aagcattgtt gaattttgtc    3600
aaaggccttt tctgcatcta ttgagataat cgtgattttt gtctttggtt ctgtttatat    3660
gttggattac gtttactgat ttgtgtatgt tgaaccagcc ttgcatccca gggatgaagc    3720
ccacttgatc atggtggata agcttttga tgtgctgctg gattcagttt gccagtattt    3780
tcttgaggat ttttgcatca atgttcatca aggatattgg tctaaaattc tctttttttg    3840
ttgtgtctct gccaggcttt ggtgtcagga tgatgctggc ctcataaaat gagttaggga    3900
ggattccctc ttttctgtt gattggaata gtttcagaag gaatggtacc agctcctctt    3960
tgtacctctg gtagaattcg gctgtgaatc cacctggttc ctggactttt tttggttcgt    4020
aagctattga ttattgcctc aatttcagct cctgttattg gtctattcag agattcaact    4080
tgttcctggt ttagtcttgg gaggatgtat gtgtcgagga atttatccgt ttcttctaga    4140
ttttctagtt tatttgcgta gaggtgttta tcatattctc tgatggtagt ttgtatttct    4200
gtgggattgg tggtgatatc ccctttatga ttttttattg cgtctatttg attcttctct    4260
ctttcttct tgattagtct tgctagcagt ctatcaatgt tgttgatctt ttcaaaaaac    4320
cagctcctgg attcattcat tttttgaagg gtttttttgtg tctctatttc cttcagttct    4380
gctctgatct cggttatttc ttgccttctg ctagcttttg aatgtgtttg ctcttgctttt    4440
tctagttctt ttaattgtga cgttagggtg tcaattttag atctctcctg ctttctcttg    4500
tgggcattta gtgctataaa tttccctcta cacactgctt tgaatgtgtc ccagcgattc    4560
tggtatgttg tgtctttgtc ctcgttgatt tcaaagaaca tctttatttc tgccttcatt    4620
tcattattta cccagtagtc attcaggagc aggttgttca gtttccatgt agttgagcag    4680
ttttgagtga gtttcttaat cctgatttct agtttgattg cactgtggtc tgagagacag    4740
tttgttataa tttctgttct tctacatttg ctgaggagtg ctttacttcc aactatgtgg    4800
tcaattttgg agtaggtgtg gtgtggtgct gaaaagaatg tatattctgt tgatttgggg    4860
tggagagttc tgtagatgtc tattaggtcc gcttggtgca gagctgagtt caattcctgg    4920
gtatccttgt taactttctg tctcgttgat ctgtctgatg ttgacagtgg gatgttaaag    4980
tctcccatta ttattgtgtg ggagtctaag tctctttgta ggtcactcag gacttgcttt    5040
atgaatctgg gtgctgctgt attgggtgca tatatattta ggatagttag ctcttcttgt    5100
tgaattgatc cctttaccat tatgtaatgg ccttctttgt ctctttgat ctttgtttgt    5160
ttaaagtctg ttttatcaga gactaggatt gcaacccctg ccttttttttg ttttccattt    5220
gcttggtaga tcttcctcca tccctttatt tggagcctat gtgtgtctct gcacgtgaga    5280
tgggtttcct gaatacagca cactgatagg tcttgactct ttatccaatt gccagtctg    5340
tgtctttttaa ttggagcatt tagcccattt acatttaaag ttaatattgt tatgtgtgaa    5400
tttgatcctg tcattatgat gttagctggt tcttttgctg gttagttgat gcagtttctt    5460
cctagccttg atggtcttta caatttggta tgttttttgca gtggctggta ccagttgttc    5520
ctttccatgt ttagtgcttc ctgcaggagc tcttttaggg caggcctggt ggtgacaaaa    5580
tctctcagca tttgcttgtc tgtaaagtat tttatttctc cttcacttat gaagcttagt    5640
```

6964

```
ttggctggat atgagattct gggttgaaaa ttctttcttt aagaatgttg aatattggtc      5700
cccactcttc tggcttgtag agtttctgcc gagagatcag ctgttagtct gttgggcttc      5760
cctttgtggg taacctgacc tttctctctg ctgcccctta acattttttc cttcatttca      5820
actttggtga atcttgacaa ttacgtgtct tggagttgct cttctcgagg agtatctttg      5880
tggcgttctc tgtatttcct gaatctgaat gttggcctgc cttgctacat tggggaagtt      5940
ctcctggata atatcctgca gagtgttttc caacttggtt ccattctccc cgtcactttc      6000
aggtatacca gtcagatgta catttggtct tttcacatag tcccatattt cttgaaggct      6060
ttgttcgttt ctttttattc ttttttctct gaacttctct tcttgcttca tttcattcat      6120
tttgtcttcc atcactgata ccctttcttc cagttgatcg aatcggctac tgaggcttct      6180
gcattcgaca tgtagctctc gtgccttggt tttcagctcc atcgggtcct ttacggactt      6240
ctctgcattg attattctag ttatccgttc gtctaatttt ttttcaaagc ttttaacttc      6300
tttgccattg gttcaaagct cctcctgtag ctcagagtag tttgatcatc tgaagccttc      6360
ttctctcaac tcagcaaagt cattctccat ccagctttgt tccattgctg gtgaggagct      6420
gtgttccttt gaaggaggag aggcactctg atttttagag tttccagttt ttctgctctg      6480
ttttttttcac atctttgtgg ttttatctac ctttggtctt taatgatggt gacttacaga      6540
tgggtttttg gtgtggatgt cctttccgtt tgttagtttt ccttctaaca gacaggaccc      6600
tcagctgcag gtctgttgga gtttgctaga ggtccactcc agaccttgtt tgcctgggta      6660
tcagcagcgg tggctgcaga acagcagata ttggtgaacc acagatgctg ctgcctgatg      6720
gttcctctgg aagttttgtc tcagaggagt acccggctgt gtgaggtgtc agcccgcctc      6780
tactggggggg tgcctcccag ttaggctcct cgggggtcag ggacccactt aaggaggcag      6840
tatgcccgtt ctcagatctc aagctgtgtg ctgggagaac cactactctc ttcaaagctg      6900
tcagagaggg acatttaagt ctgcagaggt tactgctgtc ttt                        6943
```

<210> 9389
<211> 1607
<212> DNA
<213> Homo sapiens

<400> 9389
```
agggtacttg acatgtccac ttggatgttt gataatcatt tcaaacttaa catattcaaa        60
acagaactct taatttctac ccacgcccta acctacacaa acactggaaa ctgtccatct       120
cccaattatt cttatctcaa taaatgaaat gacaccacca gccatcaacc agggatcctg       180
tacctcacct tccacatcca aactatcaaa agctcctcct gttttatgcc caatcagata       240
tcgagtcatt tcacctcttt ctgtctcctc tgctacttct ctcagacatg ttgcttcaat       300
ttctcacctg aactactaca ttagcctcct acctggctct gctttcattc ctgcctccct       360
gcagttcatt cttacagaga atctagaaaa agctcttcaa aagcaacaat cagatgtcac       420
tctcctactt tctaaaaact tttaaagagg acctcttctt ctgccagtat aacagacttt       480
gtactccaaa ggatatctct gttgcatttt agaactccta ggaagtaatg aaaatatcta       540
agaaaaaaaa tacaagtagc taagtgcata tatgtcaaca gtaaacaagc cagaaaaggc       600
agaattggcc atcccttgtg tttgtgtgtg acggtcatgt gggggtgcaa atggggaccg       660
tactgcaact cccagtttaa gcctgggatt ctagaaggga gataaaatag cccaggttgg       720
tagtaccact aaattccaga taaagcaaat gtaatttagg cttctagttt tttttcacag       780
attgggatct tgagctttca aaaaagatta tcaaacaagg aaacaaacca ccgtgagtga       840
aaatcagcaa aactagcgtt aatatattaa ttactccttc cccaccaagg gctttagatg       900
tttgaagtat cagataagaa gaaactagac taccttatat aaagaaaaat taacttaaat       960
atagactaca aaaatggtga atggtgaaca acaatggtct ctcacaatca ccaggcactt      1020
ctgaaaaaga gctaaagaaa accttcagta ataaaaaaaa attatcaaaa aatttagtgg      1080
ataagctttt ttgtaatgga ctaattaatg aactggaaaa taaaactaaa atagtttcat      1140
gcaatggagc acagacaaag agatggaact ataaggaaga gaggttaata agtttggagg      1200
gcagaataag caagcctaac taaagcctat ttagagcgtg aaaggcaaca aaaatatgca      1260
gaatggagat gagacaatgt ttaaagagat tgtggctcag aatttttctt ttttttttaag      1320
tgaagagttt tatcttttgt gttttttgtt tgtttgtttt ctttgttttt tttttttactg      1380
ttattatact ttaagtttta gggtacatgt gcacgacgtc gagcttcgtt acatacgtat      1440
acatgtgcca tgttggtgtg ctgcacccat taactcgtca tttagcatta ggtatatctc      1500
ctaatgctat ccctcccccc tcccccacc ccacaacagt ccctggtgtg tgttgttccc      1560
cttcctgtgt ccatgtgtct cattgttcat tccacctatg agtgaga                   1607
```

<210> 9390
<211> 516
```

<212> DNA
<213> Homo sapiens

<400> 9390
gacgtacaaa acctaaggga gtttaccacc agcagactta cactgaagga acttgaaaga   60
atatacttca ggctgggtat ggtgacacac acctgtaatc ccagcatttt gggaggtcaa   120
gccaggaaga ttgcttgagg ccagttcaag accagtctgc acaatacagt gagaccctag   180
ctctacaaaa ataaataaat aaattagcca aatgggtggt gtatacctgt agtcctagct   240
actcaggagg ctgaggcggg agaatcacta gagcacagga gttgaagact gcagtgagcc   300
ttgatcacac cactgtactc cagcttggat gacaaagtac aaccctgtct ctaaataaaa   360
gaaaaaaaaa gcgtatactt cagaaagaag aaaagagata gcaaaggtc tgaaaaatag   420
aaattgtaag caaagaaatt ggtaaacatg taggcaaatc taaacaaata ttgctggttt   480
aaaatactgt gtaaaactcc ctatatatga ggaagg   516

<210> 9391
<211> 1370
<212> DNA
<213> Homo sapiens

<400> 9391
gcttttgtcg gacatcttta aagcattttt cttttatag aatttcactt aatgtccaat   60
actgatttaa tgagcttggg tttacacatt atctcttgaa gaaaacaaat gaacctttgt   120
gttccaaagc aatccatgtt taaagggaaa aaattatgca taactctgcc cagcttcaca   180
gtaacctttg gcaggtgcct taggtcctct gggactcttt tccttatctg aaaaatgaag   240
gacttggatc aggtgaatgg ttcccagctc tgcaacttat gtggctcctc agaggcacac   300
aagctctttt ccattatttg ccaaataatg gaggccctgt ctttaactgc agtacaacta   360
cacaaaatac ttgaaactac agtcttcctg gtttttggtt ggaactgaat cagtgcactc   420
tagcaacact tatttcttgc tgttcgtagg cttcattatg tgtttggtta atttttaaa   480
acaacaataa catattccat aataattaca gcttaattgg cagactgttt cagtctatag   540
gatctgcagg aaggaggagt aataaaggga ttttttgactg agctcttatg gaacagagtc   600
tctctaggcc cctgtcatat ctgcccttct gggccctggg gaaaagttgg catccccagt   660
tgtggtgctc tccaggtgcc ctcaggctgt ggtggaggga gcttcccatt ctctccttca   720
gcccactcaa ttcagaggct aggggctgaa agaagcttct ctacaactgg ctgttcactg   780
ggaggttaag ggatgaccat ccagccaggc cttcctcagg acatgggagg gcttatgctt   840
taacatgtgt aaatccactg caataatgac tggttctttt accccataag gttgagaatt   900
tacctgtaaa catttttgtc tgaagaattt ggatgtaagt gagggctggg cctctatctt   960
atctcacttg gcttctctca gcacagcacc ttgcctgctt gttcttacac atcctagatg   1020
cacagtaact atttcctaat tattagaaat ctattagaat caattgattt cagctgggct   1080
tggtggctcc ttcctgtaat cccagcactt tgggaggcca aggctggagg atcacctgag   1140
tccaggagtt taagaccagc ctgggcaaca tagggagacc ctgtctctac aaaaaataaa   1200
aaattagcca ggcatggtgg tgtgcacctg tagtcccagc tactcaggag gctgaggcag   1260
gaggatctct tgagcctggg aggtcagact acagtgagca atgattgtgc cactgcactc   1320
cagcctgggt gacagagtaa gactctgtct cttaaaaaaa aaaaaaaaaa   1370

<210> 9392
<211> 346
<212> DNA
<213> Homo sapiens

<400> 9392
gacctggatt atggctggca ttcaataaat agtagctgtt aattgatagc taagctagaa   60
ctctgaagtc taccatggca acttcttaag tggtctgaga acccagttgt gttctgtggc   120
aaaacacagc ttagggatcc atcccagcc ctcctgtcag ctgttcacct tccagttctt   180
cagagacatg tgtggcagtg actttggcca catagctggc tgtgcccttt aaaggcattc   240
cttgacacag atatgtggac tggtgacgtt gctctccagc caggtgttct tcccagcagg   300
ctggcctggc tgtctcctgc atgcctgtac ttgtttgtct ccctgc   346

<210> 9393

<211> 1031
<212> DNA
<213> Homo sapiens

<400> 9393
```
aggttgcagt gagctgagac tatcctattg cacttcagcc tgggtgacag tgcgagactc      60
catctcaaaa agaaaaaaaa aagggagcaa gttctagtac tgggtggata ttttattgca     120
ccaatttagg cttctcccca gagatttctt aaaacagaaa ggcagttgta ataccaagta     180
ttgctgtatc aggccacctg ctactccaaa gccatgaatt aacttgttct aagccctcaa     240
ggaaagaaaa gaggaaacag aggtttattc cctatcaaga cagtccactt gagaaagttc     300
tgtcttggtt gtaacttcag gtttctttct tacacaggca ttttattaat gcttttacga     360
gttagaagag ttgggataat ttgccatctg gagtttctct gccttgctga tctgagctca     420
gacctgccaa tttaccagag ataattgata caccctgta acagctgagt aagtagattc      480
ttctgtttta ctgcttttaa aaaaagttta aagtttaaa atagtataaa ctttaattgg      540
gttctttaaa ttttgttgtt gaataatgca attattatga tattttgtga atatttgtaa     600
ataatgggat tctggaataa attaatcccc gatgatagaa aagagttaat gaacactttc     660
tccatacata acactttagc attcaagaaa cataggactt aaatacatat attaaaaatt     720
taggccaggt gcagtggctc acgcctgtaa tcccagcact ttgggaggct gaggcgggca     780
gatcacctga ggtcaggagt ttgagaccag cctagccaac atggtgaaat cccatctcgg     840
ctaaaaatgc aaaaattagc caggcatggt ggcaggtgcc tgtaatccca gctactctgg     900
aggctgaggc aggagaatca cttgaacctg ggaggcagag gttgcagtga gctgagactg     960
tgccactgca ctccagtctg ggcgacagag aggctctgtc tcaaaaaaaa aaaaaaaaaa    1020
aaaaaaaatt t                                                         1031
```

<210> 9394
<211> 1031
<212> DNA
<213> Homo sapiens

<400> 9394
```
aggttgcagt gagctgagac tatcctattg cacttcagcc tgggtgacag tgcgagactc      60
catctcaaaa agaaaaaaaa aagggagcaa gttctagtac tgggtggata ttttattgca     120
ccaatttagg cttctcccca gagatttctt aaaacagaaa ggcagttgta ataccaagta     180
ttgctgtatc aggccacctg ctactccaaa gccatgaatt aacttgttct aagccctcaa     240
ggaaagaaaa gaggaaacag aggtttattc cctatcaaga cagtccactt gagaaagttc     300
tgtcttggtt gtaacttcag gtttctttct tacacaggca ttttattaat gcttttacga     360
gttagaagag ttgggataat ttgccatctg gagtttctct gccttgctga tctgagctca     420
gacctgccaa tttaccagag ataattgata caccctgta acagctgagt aagtagattc      480
ttctgtttta ctgcttttaa aaaaagttta aagtttaaa atagtataaa ctttaattgg      540
gttctttaaa ttttgttgtt gaataatgca attattatga tattttgtga atatttgtaa     600
ataatgggat tctggaataa attaatcccc gatgatagaa aagagttaat gaacactttc     660
tccatacata acactttagc attcaagaaa cataggactt aaatacatat attaaaaatt     720
taggccaggt gcagtggctc acgcctgtaa tcccagcact ttgggaggct gaggcgggca     780
gatcacctga ggtcaggagt ttgagaccag cctagccaac atggtgaaat cccatctcgg     840
ctaaaaatgc aaaaattagc caggcatggt ggcaggtgcc tgtaatccca gctactctgg     900
aggctgaggc aggagaatca cttgaacctg ggaggcagag gttgcagtga gctgagactg     960
tgccactgca ctccagtctg ggcgacagag aggctctgtc tcaaaaaaaa aaaaaaaaaa    1020
aaaaaaaatt t                                                         1031
```

<210> 9395
<211> 129
<212> DNA
<213> Homo sapiens

<400> 9395
```
ggtgcggtgg ctcacgcctg taatcccagc actttgggaa gccgaggtgg gtggatcacc      60
tgaggtcagg agtttaagac cagcctggcc aacatggcga aaccccgtct ctactaaaaa     120
tacaaaaat                                                             129
```

6967

<210> 9396
<211> 551
<212> DNA
<213> Homo sapiens

<400> 9396
```
tacaatatgt agtatattag aaagcaatga gtgctttgga gaaatgtaag gcaggcaaga      60
gtaagggctg aagagttgac tggtaaagag aatgtttagg gaaggcctca gtgagaagtt     120
gtgaagaagt tgatggaaag agcctgtggg tgtttggggg aagagtgttg taggcagaga     180
ggatagcaaa tgcaaagacc ttgaggcaga agcatgcctg gcttgtttga aaataggagg     240
aggctagtga atggagtgga gtgagtgaag gggctgtaat cccagcactt gggaggcca      300
aggccaggtg gagcacgagg tcaggagatc aagaccatcc tggcgaacat ggtgaaatcc     360
cgtatctact ctaaaataca aaaaattagc caggtgtggt ggtgggtgcc tgtagtccca     420
gctactcagg aggctgaggc aggggaatcg cttgaacctg ggaggcagag gttgctgtga     480
gctgagatcg tgccactgtg ctctagcctg gcgacagggc aagactctgt ctccaaaaaa     540
aaaaaaaaaa g                                                          551
```

<210> 9397
<211> 549
<212> DNA
<213> Homo sapiens

<400> 9397
```
tacaatatgt agtatattag aaagcaatga gtgctttgga gaaatgtaag gcaggcaaga      60
gtaagggctg aagagttgac tggtaaagag aatgtttagg gaaggcctca gtgagaagtt     120
gtgaagaagt tgatggaaag agcctgtggg tgtttggggg aagagtgttg taggcagaga     180
ggatagcaaa tgcaaagacc ttgaggcaga agcatgcctg gcttgtttga aaataggagg     240
aggctagtga atggagtgga gtgagtgaag gggctgtaat cccagcactt gggaggcca      300
aggccaggtg gagcacgagg tcaggagatc aagaccatcc tggcgaacat ggtgaaatcc     360
cgtatctact ctaaaataca aaaaattagc caggtgtggt ggtgggtgcc tgtagtccca     420
gctactcagg aggctgaggc aggggaatcg cttgaacctg ggaggcagag gttgctgtga     480
gctgagatcg tgccactgtg ctctagcctg gcgacagggc aagactctgt ctccaaaaaa     540
aaaaaaaaa                                                             549
```

<210> 9398
<211> 1693
<212> DNA
<213> Homo sapiens

<400> 9398
```
tggcctcagg actcatctct gtcttctcca accccagctg gcctccatgt cccctggggg      60
ctttctgctg ctgaccagct tgggccctac tataggtttt cttgctgggc ttaggagcct     120
gagagaggta gccatttcca aaagaaaaga tttctatctc agattatctg ggaaagaggc     180
tgagtaggtc ccttctctga ggaaacaggc agcaggacat aggatggggc agtgggagga     240
aaagggtctg cactatgggg tccttgggct gtgcactcct gaccttatca cttcacagtt     300
cccaccagat ctgacttgac ctccgggcca tgacccagtc cctcccccac tctggaaacc     360
tctgtgtccc ctcctgctcc tttcactccc acctgggagg ctctgagcag gccagggtcc     420
ctctctccag gcctgctcct ccctttctcc tcctgtcccc ccagccatcc ccccagccag     480
gctctcccac ctctggcccc acctcacctc ttggccttct tctttccctc gggcgatggg     540
agcctggttt ggctgcccag ggaagattgt atctgaccac aggaggggagg gctgagggca     600
ctgctgggtg agctgaggcc tccttaggtt cttgctgtag tctgagttca agtcatttag     660
aatgagtgac ttgaggaaga gggagctggg agcccttttc accagcaggg ggactggagg     720
agtcgaatgg ggtggggtct tctcgttttg attagcttct ggtggaggtc ccaggctttg     780
gcgtgctcaa gcttggagtg gcagggagca ggcctggctt gaccttcttt ccttcctgct     840
ccctctcctc accctccct gcagctcttt cactccgtct ctctctctac agatgggacc     900
caggtgagcc cgggtgccca ctactgcagc cccactggcg caggtaagag tcaaacccgg     960
gggagtccat ggtagggagt ggaagatgag gggtggaaag gctgtaagaa cgcgagaagc    1020
tgaggggtta gagaagcagg gtcgctggct gatctgccag agagccagga ggtggcggct    1080
```

```
ccagggaggg gcgaggagcc ggggtaagag aggcagctct ggatgctggc tgggcacagt    1140
gctaggaaac acaacaggaa aaggaaacac aggatgcccg tcttgtcctt gctgggagca    1200
gtgaaacagg aaggaaagta agaagctaat atttatactg agacccctac cccatgtcag    1260
gcaccaggca aggtgtgttc ttgtgtgtgg actcggtcct cacaccggct ctgcaaggtg    1320
ggcatggcag cccttgcagg actgctctgc tggaggggaa gtgttctctc actgtctgcg    1380
cctcctccct ctgctggccc gagcctcctc tgctgctagg ctgccctggg gaaggactgg    1440
acttcctgct gctgctttgg tttaggacat gcccatgggg ccaggtctgg actagacgcg    1500
gtctgccctt cctttagtgt agccagtatc aaccaagggc tactgagtg caagatatac    1560
agcctgatgc ctaataattc catatagcag ggagaaatgg aacccaggta tcctccttgc    1620
ttcagtcctg gctgttgaaa agctaacagg caggttaggg aggaagcaca cacaaataca    1680
aagcgaaaaa aaa                                                       1693


<210> 9399
<211> 595
<212> DNA
<213> Homo sapiens

<400> 9399
tttttttttt caggctgacc ccaaattagt agtaacagcc ctcggagaga ggcagtgatg      60
ggaaaagagg tcccacactc aagccagaac tgggaggcag gatgttcatg ctctggcttc     120
agttcagcta ctgacggggt gccagtagat acctttcctc tctctaggac acaaagagag     180
ctgttcctgg gtcttaatct ctgtcgctct gcgctcttct gaacttgatg ccctcagca     240
cggggccagg gagcggggga aaagcagaac ttttccagg aattgctatt ggaagcagcc     300
ccgttgccaa cacgcatgca cacatgcaca cagcttttct ggacagacct tatattatgg     360
attatcacca caaaacatcc ctttggggcc tggtagccca caccacagaa ttcagggtca     420
ttaattttc tcctatccag agagtgcatg gtgtccggaa tctgtggtta ccaggggagc     480
aaggcacaga gaacctggct ctgctcccaa gcatgaatgc tgctgaccag cccctgggta     540
gggactgggg aggtgggaca gaattcccag gaggcagggg actcagcctg acaca         595


<210> 9400
<211> 399
<212> DNA
<213> Homo sapiens

<400> 9400
aaagcccctt gaggggaggt gaattcctga aagttggtgg gaaactggag tacctgcctt      60
ggtaggacca gaacccatgc tagctctgcc cctagcaggg tgactttgga cagggcccttt    120
cacctccgag cctcggtttc cttatttagg ataacaagat agtaatgact accccccggg     180
gccagtggct tgatgtagct gctcatgcac aagtgctgta gatgtaaaga ttgtggttag     240
gagtggccag cttgggcctg gaggctatga tttctgactc ctggactggt actttgccac     300
aggccttttcc agccctcctc agccccaatc cctgaggaca gtctgtggct gccccactgg     360
gagatgccca gcgttggaat tgctgaagga ggcctctcc                            399


<210> 9401
<211> 1521
<212> DNA
<213> Homo sapiens

<400> 9401
aatcccttga gggcctgaat aaaataaaag acaaagagag agcaaatttg tactcagctt      60
gagcttggat atccctcagg ccctccctca ggccttctca tcagactgag atttaacact     120
attagctctg tcggcctcca gcttgcacac ggcagactgt gggactttct agcctccata     180
attgcatgag ccaatccctc ataataaatc tgtttctatg tatctatatt ttgttggttc     240
tctctggaga accctgacta aatacactgt ttaagaaagg agtaaaactt gcactgagat     300
gtttagagca gctttattca tagtttatca aaatgtggaa gcaatcaagg tgttctccag     360
tagggggagg aataaataaa ctgtggtatc tccgtaaaat ggaatgttat tccacactaa     420
aaagaaatga gctatcaacc atgagaatac atggaggaac cttaaatgca tattactagg     480
caaagaagcc attctgaaaa ggctatatac tgtgtgattc caacttcatg acattctgga     540
```

```
aaaggcaaaa ctatggagac aataaaagga tcagagatgc caggggttgg gaaggagggt      600
aaattaatag gtggaacaca ggattttttag agcagtgaaa ctattctgta tgatataaca      660
atggtggata catatcatta ttcatttgcc ttaacccaca caatgtacag taatgaaagt      720
gtactgttag gtaaactgtg gactttagat gatgatgtgt cactgtaggt tcatccattg      780
gaataaatgc accactcttg tgtgggatat tgatagtggg aagactgccc aattaagaaa      840
tctgtacttt ctactcaatt ttgctgtaca tttaaactgc tctaaaaaat aaactctgtt      900
ttagcctgta accccagcac tttgggaggc tgaggggtg tatcacttaa ggccaggagt      960
tcctgaccag actggccaac atggtgaaac cttgtctcta ctaaaaatac aaaaattagc     1020
cgggtgctgt ggtgcatgcc tgtaatacca gctatttaag aggcatgaga atcgcttgaa     1080
cctgggacgg gggttgcagt gagccaagat cctggcactg cacttcagcc tgggtgacag     1140
agcgagactc tgtctcaaaa ataaatacat aaatacataa ataaactctg tttttaaaaa     1200
tgagcaaaag gccaggcacg gtggctcaca cttgtaatcc tagcactttg ggaagccgag     1260
gcgggaggat cacttgaggt caggagttca agaccagcct ggccaacatg gcaaaacccc     1320
atctttacta aaaatatcaa aattagccag gcatggtggc atatgcctgc agtcccagct     1380
acttggggagg ctgaggtggg agaatcgctt gaactcgaga ggtggagaat gcaatgagct     1440
gagatcacac cactgtactc cagcctgggc aacagagcaa gagtccgtct caaaacaaac     1500
aaacaaacaa aagagcaaa a                                                1521


<210> 9402
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 9402
cctctccctc tctttccaca gtctccctct ccctctcttt ccacggtctc cctctgatgc       60
cgagcggaag ctggactgta ctgctgccat ctcggctcac tgcaacctcc ctgcctgatt      120
ctcctgcctc agcctgccga gtgcctgcga ttgcaggcgc gcgccgccac gcctgattgg      180
ttttcgtatt ttttttggtgg agacgggatt tcgctgtgtt ggccgggctg gtctccagct      240
cctaaccgcg agtgatccgc cagcctcggc ctcccgaggt gccgggatgg cagacggagt      300
cgcgttcact cagtgctcaa tggtgcccag gctggagtgc agtggcgtga tctgggctcg      360
atacaacctc cacctcccag ctgcctgcct ggcccccca aagtgcggag attgcagcct      420
ctgcccggcc gccacccgt ctgggaagtg aggagcgtct ctgcctggcc gcccatcgtc      480
tgggatgtga ggagcctctc tgcctggctg cccagtctgg gatgtgagga gcgtctctgc      540
ccggccgccc catctgagaa gtgaggagac cctctgcctg gcaaccgccc cgtctgagaa      600
gtgaggagcc cctccgcccg gcagccacac cgtctgagaa gtgaggagcc cctccgcccg      660
gcagccaccc cgtctgggaa gtgaggagcg tctccgccca gcagccaccc cgtccgggag      720
ggaggtgggg gtcagccccc cgcccggcca tccacctcgt ccggaaggga ggtggggggg      780
ttaggcccca gcccggccag ccgccccgtc ctggagggag gtggggggt cagcccccccg      840
cctggccagc caccccgtcc gggagatgag gggcgcctct gcccggccgc ccctactggg      900
aagggaggag cccctctgcc cggccaccac cctgtctggg aggtgtactc aacagctcat      960
tgagaacggg ccatgatgac aatggcggtt ttgtggaata gaaaggggg aaaggtgggg     1020
aaaagattga gatatcggat ggttgccgtg tctgtgtaga aagaggtaga catgggagac     1080
ttttcatttt gttctatact aagaaaaatt cttctgcctt gggatcctgt tgatctgtga     1140
ccttaccccc aaccctgtgc tctctgaaac atatgctgtg tccactcagg gttgaatgga     1200
ttaagggtgg tgcaagatgt gctttgttaa acagatgctt gaaggcagca tgctcgttaa     1260
gagtcatcac cactctctaa tctcaagtac ccaggacac aaacactgtg gaaggccgca     1320
gggtcctctg cctaggaaaa ccagagacct ttgttcactt gtttatctgc tgaccttccc     1380
tccactattg tcctgtgacc ctgccaaatc ccctctgcg agaaacaccc aagaatgatc     1440
aatttaaaaa aaaaaaaaa aaagagcaaa agacttaaac agatacttca caaaataaga     1500
tctcaaaata cccccaaaat gtgaagaaaa ccctagaatt gctaaaataa aaaagtacta     1560
acaataccaa                                                           1570


<210> 9403
<211> 1426
<212> DNA
<213> Homo sapiens

<400> 9403
aggcaacatt atctgccttt gaaacaccac ctccgtggat taccatttgg cccaatggga       60
```

```
gggtctggat aatgcccatt atattatcct aattccctgc tacctcagag gttgttaagg    120
ggcacttctg ctgtttccct ctgagtgacc tctggctgcc actctcttgc agatgctcct    180
tttcctctca gggatgagtc ggagctggga ctgggaaagg cagccctctt gtttctgttc    240
aagttggcca ggaatgccca ggaatgatga ttctgttttg ccagcttctt gccgtgaggc    300
tggggttgct gtgtttacag cacaaccaac cctaaagtca gtgcaattca ctgtggattt    360
attgagcacc tgctagtatg tgcgtgtgtt ggggtggta tatgaaaatg atggaggcag    420
gtctctgcct taaatgaggg agggtgggca aacagctccc acggtcggcg gttgaaccag    480
ttcctattct ttctcatagg aagtgtccat aaacattgtc ttgtctcatt tgcatggttg    540
ttgagaggtt tgaatgtagt ggtaatgaat tgagagtgct tctaaaggta ttaagctctt    600
gattatgta aaactttctt cagtattact aggcaggctg ataataaaag ctaacatata    660
ttgaatgctt tctatttgcc aggcactgcc ctaagtgctt tctatatatt agcttattta    720
atctttatag caactttgaa gtagattgct tgtgtaccca cttaaaagag gattaaaaaa    780
acttgccgag gatggcacag caggtaagta gcagagccag gcagtctgaa cgtttggcca    840
aacactggcc actgtaaaga tcttgtggaa gtcagggagt agaggtggtc tctctccccc    900
aagtgaaggc agcagccagg acctaccgtc agagaccagc aaggagcaga gaaaggtcag    960
gctggtgcct cagaaagcat cagcatttct gcacaactta attaaattac tgaaaccttt   1020
tctgagcttg gagccatctt tcttggagag taatacaatt gaaacagata atttaagcca   1080
aggaggaagg acagaattgg tgagctcaca tatgtagatg gacatgtaat gacgtctgac   1140
taaaacacag aggaaaaacc ttaaagtgaa tcatgtttat tcaatttcca aacaagtgca   1200
aagacccagg cagcgtgctt catgtttgga ctcttgaaga acacacatgg aaaaaaaaaa   1260
agaaaaaaac ctcttcccct ctcaaccctt ttctaagttt ttattaagaa tatattaatt   1320
tgagcattaa tatgcaatgt atccatcttt gtcagttatt ttccagaaaa atctagctca   1380
tttttgagg caacttctag ccaagttgtt tcagttgtgg agaatt                    1426


<210> 9404
<211> 111
<212> DNA
<213> Homo sapiens

<400> 9404
ttacaggcac ctgccaccac gcccaggtaa ttttggatt tttagtagag acggggtttc      60
accatgttgg ccaggctggt ctggaactcc tgacctcagg tgatccaccc a             111


<210> 9405
<211> 363
<212> DNA
<213> Homo sapiens

<400> 9405
cttggatagg ttatttagcc cttctgcttc tgttttttgt tttgttttgt tttgcctaaa      60
acggatataa cagtacctac cttttaaggt tgttgcaagg attaaataag atattagatg     120
taaaatgctt acatctgtgc gcagtgacta agcactcaaa tgccagttaa taataataat     180
tctgtgatta tcctgaggtt tcatgtttct ggagtaggat tatgaccaca acatttacag     240
aatgaagtcc tgcaggatga caaaacatcc ctgtccccat tgacacagcc ccaagtcacg     300
ggcttgcaaa agaatgtttg ccatccctag gaagcctaac acagggcgct gggaaatgct     360
tgc                                                                   363


<210> 9406
<211> 11838
<212> DNA
<213> Homo sapiens

<400> 9406
agcctaggca acagagcaag actctgtctt taaaaaaaaa gaaagaaagt tatgtttta      60
ttctgtaact gcttctaaat attcttcagt accccattca acccgagaaa ctactgtcac     120
agctgacagg agttattaac ctctctaaat ttcaggggga aaatgtataa atatgtcatg     180
tatttgataa atagtttttcc cttttttaa tgaaaagatt atctgattgg attgacctgc     240
ctactaattt ttgctattaa cttttttcatt cttaggcaat aagcaacaaa gaccagcata    300
```

6971

```
gcatatcata tactttatct cgggcccaga ctgtggtggt tgaatatact ćatgacagca      360
acaccgatat gtttcaggta ttacaacatc ttaaattttt tttcttaaga aacgaaaaag      420
ttaaaaatct attgttggtg acttttgctg aggtcagagg attatcagat ttttatattg      480
tattttatta aaatatagat tgattgctaa cccttataaa tagaagtcaa tctagcatgg      540
ttgagatggg ctccagaata agaattactg gtaaatatta cataaccatt atatgcctca      600
gtttcctcct ctgtaaagtg cagataatag actctcccct atgactgtta agaggcttaa      660
atgatctagt acatgtagag tactcagcac tgtgccaggc acttagtaaa aacacttagt      720
gaatagtagc tattatccaa aaaagaaaac agtaaatact ctgcatacat ttatgacttt      780
ttctaccact acctcccacc ttcctctcta gacaataaac aatccaggca cttgctaact      840
atttgtatta tctatgtgaa atcaaacctt tttctcagca tgtatttggt caatgctact      900
catgcaataa aagtattttt ctcttacttt ttgtaccaat ccagtgctga tattttataa      960
actgatagat tttaggacag tcagttccaa agatgtaaat agaatccttg atcttctccc     1020
ttaatattga gctctctgaa gcttaggctt tttaaaaaca aacttaagta caacataaat     1080
tgcctgataa tgttgctttt ataattattg tcacattgac ttccattttt ctttatttta     1140
caaggcaaat aaaagtgaaa agacctggaa atatatttaa tttcagtcaa tagtgaaata     1200
tttctttgaa gccactccct ctgcccaacc cttttaatga gatgagatac tgaatttctt     1260
ttctctagtt aatattagaa tgtgggcatt tattatgttt tcctcacttt taccaaaaat     1320
aaataagatc tttaaggaag attaatgttt agatccaaga aaaaccgaac acaaagcttt     1380
aggatgattt ttcacatttt gtttcactga caagcagtga aaatgaatga cttagcttt     1440
tttttaaaat caagatgcta ctaggcctgt agtctcagtt actcaggggg ctgaggtggg     1500
aggatagctt gaggccagcc tgggcaacat agtgagactt cgtctcttta ataaaatata     1560
gataaatata tatgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgta tctccaagat     1620
atttggtcac aggctagaat tttagcttca gaaagtacgt tatatttatt tgtttaccgc     1680
ttatcttttg tagatgaggt taactgaaat cttgtgagtt aaagatgata gagttacttg     1740
ggggcaaaac tgaaattaaa ccaggcatcc tgaattctga aacaatgtct tcaccatcta     1800
atgaaggccc ttgaataagt tttaacagtt tgggttttgt cttttttcata aagtagagaa     1860
ttttccccag tatcataaac tgattatgcc ctttctacag gtattatacc tttggaaaat     1920
ccaaacattt ctgcatcaaa aagactgtga tgtatcagaa actaccttga taaactagcc     1980
agtctttgag gaattgtact ggaaacattc taggattgtc taccctgtaa actgaacaag     2040
aacatttatt gttcaagtca tcagatattc caactccaac tctatgcctt gtttgtcact     2100
atgaagtaca taagggagac attacaagct gattacatgc ctaggtgctg tactgaccct     2160
gtaaatctta agcacattga ttgtgttgaa gaaggatgga gaaaagactt tacactggtg     2220
ccttttcatg tagatctttt tatcaggtta agtaggattt ttgccagcaa ccggtagaaa     2280
agcattctag caaaagagat ggcaaagaag caaagaagta gtacacagtg tggtgaaaga     2340
ttgacgaata agctgttgta gcttgtatac acaaatagca ggaaattcgg ctggattggt     2400
agatgggagg caaatcttga gtcagtttct aactattatc agaaataata aactacaaat     2460
tttggataag ctataaggaa ccattgagtt ttctcatgag ggtaagggag agtaacaaaa     2520
gagctgtatt tttaatgcta ataatagcag gggaagaatt attaacaatc atattttggc     2580
atctgatcac attcatggtg gttttttttct ctttatagat acttaagttt cttccttctc     2640
attgtcatta caaatattgc ttcagtgtct taaatattct cttccaagac ccagttgaaa     2700
tgtcagctct ctggaacagt ctctttccaa ataagtgcta cttctgttga ttctgaatat     2760
tagttcaatc cttggcctat atcttttagc ttttaaagag ccttttttatt tgggggaata     2820
tttttttgttt caaagatctg aggccattta aggtatcttt attttttaaga ataaagaaaa     2880
ggaatatcca atcttatatt tgttaactag tttccctcta aaactatcca atctaaataa     2940
aaagacttta tacttgacag ttggacaaaa acactaaaga ggtttatctg aaagtgtgcc     3000
gatatgagga acttgaggct aaaatatgta aagaatgact tttaagagtc tttatctttg     3060
tagagggtca gtattttttc tcagtaccca cattcttcaa ttttatggta ctactttata     3120
acaaatacat tcatgaactg ataatttcca aatgtttgct ttaaagcccc gtgacacttg     3180
tcactttgt catctcccca ttgatttcct tttttctttc aactttcaaa atgaaattaa     3240
cttatttact agctagtacc tctgaagata ttttttaaatc tctgacacct cactcatcca     3300
gaactcttat ctgggaacct tgtctctctg aaatatccct aagaaccagg aagagtatat     3360
atataaaata aatgccacaa agttgatgta gtgaaattcc ttttctattc tccctagagg     3420
atcccttagg ctctcaccag aaccttttga aatactttc tctgaaatag gttatttgat     3480
ttctcaaccc ataacagagt aagagtagcc agttaaaaga ggggcttgtt gctggaaaca     3540
agcatgacca aaaacaagga gtgatagctg acaacctgac agaaaagaaa caagaaaata     3600
tatgaagtat acataagacc tcaaagcaag gctgtgtaag cccttgacat aaggaccagc     3660
agccttgtat acctcttgta gcacctgaag acatcactgc atttcagctt aacgtaagtg     3720
gtatttatag tgtaatgttc tgcagtcatc ctaaaagatt tacttatata tgttcactat     3780
attctgttaa ataaggtaga atatctcttt aaatatctct aaagagaaaa aaactacatg     3840
atacacatat ttccatccaa aagggttaaa attaaaatct gcagccatct agaaatctca     3900
gccgttcctg aattcttcat tccctaaggg tttcgtatat tattgtaagt tctcatttaa     3960
```

```
ttccatgctc taagtgatta cttcatcaga gacagtctga ctgattagtt ttcaagagta    4020
tagatgcccc cagcgttaag tatggtaaac ttcaacttta gaaatttcag agacctaatg    4080
ttctctcctt attgtgccct tcttgaatgg attttccact gtgctctttg aatgggttta    4140
taggtatttt ttttttttccc tcagattggc cggtcgactg aaagccccat tgattttgta    4200
gtaactgaca cggttcctgg aagtcaaagt aattctgata cacagtcagt acaaagcact    4260
atatcaagat ttgcctgcag aatcatatgt gaacggaatc ctccctttac agcacggatt    4320
tatgctgcag gatttgactc atcaaaaaac atctttcttg gggtaaaaag cttttttttct    4380
aaatgatgct ttcttttata ctagctttca ttccaagtta caagttacaa gttggaagct    4440
cactgctatt atttctacta ggagaaggct gccaaatgga agacatcaga tggacagatg    4500
gatggcttga ccactaatgg tgttcttgtg atgcatccac gcaatgggtt cacagaagac    4560
tccaagcctg gaatatggag agaaatatcg gtgtgtggaa atgtatttag cctacgtgaa    4620
accagatcgg ctcagcagag aggaaaaatg gtaaatactg aatggtattt tcttaattag    4680
ctacaataaa cacataggat gagtagaact gaatgcatta catacattcc agaaaactct    4740
taaatctatt gccaacacag aatactaagt ctatcaaaca ctgactacca aattctatac    4800
tagaggacag tctctttaat atttcgttta gtagccgggc gcggtggctc acacctgtaa    4860
tcccagcact ttggaaggcc gaggcagatg gatcacctga gatcaggagt tcgagaccag    4920
cctgagccac atggagaaac cctgtctcta ctaaaaatac aaaataagcc aggcatggtg    4980
gcgcatgctg taatcccagc tactcgggag gctgaggcag gagaatagct tgaacctggc    5040
aggcagaggt tgcggtgacc aagattgcgc cattgcactc cagcctgggc aacaagagca    5100
tttagtaact ctggaagttc attcttctgt catatcatgt taatatattt taaaacctaa    5160
gctttcttaa actaaacagc actccctctg atcttttctg ttgccatctg tatatcttaa    5220
accatattta cctcattaaa aatattagac ttattgatta gccagatgtt ttaatcataa    5280
gttgtcttta ccataaggct aaaaagaaat atgttaatgt ttgatatttt atccttgatt    5340
ttcaaactta acatttttca taactactgt cagtttcttg aatatttagt gaaaatccta    5400
ggaaacctca tttcttgagt aaggagtact taaaaccaaa acacttatgt aaaaatccaa    5460
aacagagtgg tgaatatgtt tttcaactct tgtctcctct aggtggaaat tgaaaccaat    5520
cagttacaag atggctcgtt aattgacctc tgtggtgcaa cattgttatg gcgtactgca    5580
gaaggccttt cccacactcc taccgtgaag catttagaag ctttaagaca ggaaatcaat    5640
gcagcacgac ctcagtgccc tgtagggttc aacacactag catttcctag tatgaagagg    5700
aaagacgttg tagatgaaaa acaaccatgg gtatatctaa actgcggcca tgtacatggc    5760
tatcataact ggggaaacaa agaagaacgt gatggaaaag atcgtgaatg tcctatgtgt    5820
aggtctgttg gtccctatgt tcctctgtgg cttggatgtg aagctggatt ttatgtggac    5880
gccggccctc caacccatgc gtttagcccg tgtgggcatg tgtgttcaga aaagacaact    5940
gcctattggt cccagatccc acttcctcat ggtactcata cttttcatgc agcctgtccc    6000
ttttgtgcac atcagttggc tggtgaacaa ggctacatca gacttatttt tcaaggacct    6060
ctagactaac agaccattgt cttgcaggac tacattataa atttataagc taagtgagtt    6120
gggttttcga acctgttgtc cacgtcacag ttttttctgct ctggtcattt gcattaagat    6180
gaagaatttt ttaaaacatt tataataaat agtagcaatt tctgagcaaa aatctgggaa    6240
actcaagcaa aggaatttct gaaagtatca gtcttctgaa ttctgagttt tgaaaatata    6300
ttttgaggag aaaaagacat agtctaattt gatgccttcc ttttagtgtt tttgaatcac    6360
ctatcctcag tgctgaaatt gttttgtata actgagggta ctgttggttc aaactatgtt    6420
agtttacagt ttgttgcaaa cattgtaaaa tacagcgaca tgtatattaa ctttttttcta    6480
tttatctttta ttatagaaaa taccttagaa tgttcttgat agagtagcat ggtaacgatg    6540
gtgtcacacc cttggtgtga atggtagctt agtgagcaac ctagctcaag gatttgcaaa    6600
gttaggaaga aggacgagag agcctctctc cccaccccaa tctaaatatg gaatttggta    6660
aattagaata ctttgtaatt tgtaagacca aattcatact aattacccgc gtgaaaggtg    6720
tttgttttta acaacattga agataatcag gaaagatttt ttcttaatgt ttctctcgag    6780
cgtagtacta taacaaaaac ttaatgctaa gaaacatttt atatgctcct ttggatatgc    6840
aatttaatct agattatcta tttttctccc atgataacta atctgttttt agtatcagca    6900
gcatttggca agtttatttt ttggatataa actgtggttc atctgttcac tgtttctaga    6960
aaaaaatcat tgccataaga aaaagtataa attagcaaga aaggagagtg acttgatttg    7020
cttttggaaa aagaaatgct taattaatta ttctgtattt ggccttattc gggcattagg    7080
aaatctagag atctaaaggg ttgaatgaca atagtgcccc cgtttttagc agaccagcct    7140
taactctggg tttgaatcct aaggagattg ccacagtgag acttaaggaa atgtttggtt    7200
ggcagatgag caccaatgac tgcagcgtgg agtgacgcac tgcatggtct gtttattctc    7260
taattccaat atgtcttttg cttccagaag caagaaaagt ttcttctctc ccctccttcc    7320
cacccttttt tcaaaggcac cacaagtata gacagttgca ctacatcaaa tctttttttg    7380
acacttgtag aaaccagtac acttttagat tagacagtat cttcttttaa tattttgatt    7440
tgttttcctt tagtttgaaa agttgtataa tacttaactg actgtagcaa agtttttatat    7500
gtggtagcat accttttaatt tatcctatta caaaactgtt ctgaattttc ttttggtttt    7560
taaaaaacaa aacttgttgc ttagaagcca tgaattattt tatttttactt caactgtcga    7620
```

6973

```
aacttccttg ttttaaaaaa tgatcatttg ggttcactca ggaaatgcat gtcaggaaac   7680
ttgtattata agtttattag ttgtgatgta tcagtaactg ctgttacccc ttttcaaag   7740
aaatgtaatt gattttgaag ttttctagat tgtcacatgc tttgtgacta atgcaagaaa   7800
gcaagtcctg tgttgtattt gttctagtca ttttttattca ggctatatat tgtagcttaa   7860
ttttttatttg caattaattt atttaaacta agtaaatact tttcaaaata cataattgaa   7920
ttcgtctctg tgagttcatt tttgcataat cgagaatgag aaaccagaag tgaaaactgt   7980
gaacaactct attccacact ccaaaaatac tcatttgaaa tagatgaaga gtttgcattt   8040
aatgtaacac tttaaagtat ctggttcttt tttaaaagca tctcttacta ataaaggaac   8100
tttgttagtg gttgaataat tgaggccttt tctaagttaa gccttgctag ggagttggca   8160
cctgtaagtt gcatgttaga ctatttaaat agtggcttcg taaccataaa agttgcacgt   8220
ccttcccaaa gttgcctgca ttttcttcta acaggtaaaa acaatctctt ctaacaggga   8280
aaaacctggc tcattttcta tcaaattcaa gttttaaaaa ttcaggcaat ttaaatgatc   8340
agttgggtgt ttgctgttca agcagaactg ttattttgtc atggcctaat agaacacttt   8400
tacttagttg tattaaggga atgtcagtat tctggccaag gaggagaaaa agttgtattt   8460
aggtcttcta aatgcattct caagaaagat aatctttatg gcttaactct tttatcaaag   8520
taatctttat atttaaatgc tacttaattt gttcaaggaa ttaaatttcc ctttatctaa   8580
aatgttaggg taatgaagca agacatgaag ggaagccatt cagacatcag agttctttta   8640
ctaggttatc ctcttgcaac cttctttgct tacttccctc atgtaaaagt cttctagtac   8700
atgtaaagca gggtaggaat aaataataat gtaagtatgt aattacttct tcttttttttt   8760
tttttttttg agacggagtc tcactctgtc gccaggctgg agtgcagtgg cgtgatctcg   8820
gctcactgca agctccacct tccgggttca cgccattctc ctgcctcagc ctcccaagta   8880
gctgggataa caagcgcccg ccaccatgcc cagctagttt ttgtattttt agtagagaca   8940
gggtttcacc atgttggtca ggatgctctc gatctcctga ccttgtgatc cgcccacttt   9000
ggcctcccaa agtgctagga ttaattactt ctaacatttg agtgtcccac ttcactcttc   9060
ccgtctgacc cagactgagg gcactggtga aagtccactt attatgtctc taaggttata   9120
agctcaacat aactctaaca ctttggccct tcgttgcaat ggatcatctt gtgctaccac   9180
ttcttttttt gtttaagaca gggtcttgct ctgttgccga ggctggactg cagtggtgca   9240
atcacagctc accacagcct caacctccca ggctcaagca attcttccac ctctacctcc   9300
tgagtagctg ggactacaga tacacaccac cattcctggc taatttttttt catttttcagt   9360
agagacgccg tctgactaga tttcccaggc tggtctcaaa ctcctgctct taagcaatcc   9420
tcctgcctca gcctcccaaa gtgcttggat tacaggtgtt gagccaccac accctgctgt   9480
gctaccacac tttagagacc actggttaat aaacctatgt tccattccct tctctgtttt   9540
ctctaagcac tgccctatag caaatcagaa cagcaaaact ctgcatcact gaactctgtt   9600
attctgtctg tcacccccac tttcagaatt actcttatat aagtattctt taatgtttta   9660
tcctcaaatt ttatctactt ttttttttttt tttttttttt gagacggagt ttcattctgt   9720
cgcccaggct ggagggtagt ggtgtgatct cggctcactg caacctctgc ctcccggctt   9780
caagcaattc tccctgcctc agcctcccca agtagctagg attacaggtg ccggccacca   9840
cacctggcta atttttgtat ttttagtaga gacgggggtt tgccatgttg gctaggctgg   9900
tctcgaactc ctggacccaa gtgatccacc cacctcggcc tcctaaagtg ctggatttac   9960
aagcgtgagc caccgcccc ggcctctgct ttcttaaaac agattttgt atacccactg   10020
tgtgccaagc cctgtcctaa accgggtgat atagcaggaa aaaaaaaatc cctgccttca   10080
tcgtgtttgt attctagtgt acaagataga aataagcaag aaaaagtaaa tatatgtata   10140
tatacaatat gatagtgaac tgtgctgagg gggcaaataa agtagaaaga ggagatgcag   10200
atgcaaaatg tcatatgctg gggcaggagg agaagtgttt gcaatatcaa acaggaaggc   10260
tagggaaagc cccactggga aggtggtatt tgaataaagc tctaaaagag ctgaagagag   10320
aagggagtgg ccacttagag gggcatttag gcagagagct ctacaaggcc cttgcaaggg   10380
ccctgaaata gaagcatgtc tgggatattt ctacaatagc aaagaggcgt gtgatgccaa   10440
gtggtatgaa tcaaggaaga gtagcaggta aggtcaaaga agtaaaacga cagaatttaa   10500
gtgacagatg gggatgacaa tagattatgg agagcccct gggatttatg gctttaattc   10560
tgaatgagat tgggacattg gagggttttg agcaggtgag tgacttgatg tgacatattt   10620
aataggatct gaatacactg aaggtgggat cagggagaac attgcagtaa tcctggagat   10680
aaatcatggt ttggataagg tggtggcagt ggaggtggtt tgaaaagtga tcagattctg   10740
aatgtgtttt aaaggcagac ctgacagcat ttgctagcag atcagctaca gggtttgaaa   10800
gaagagggat caaggatgac tccactcaat cagcctcagc aactggaagg atggaactgc   10860
catttgttga agtagagatt ataggaagaa ctgtttaggg gatgaggctc actggtggag   10920
gaatcaggaa ctccgtcctg agtgttagac tgaggcacct gtcagacgac atttgccaaa   10980
ggaaggacaa ctccacttat aactactatc aaagttctca accattatga tcagtgttct   11040
ctgtataccc cacgctagct tagaaacaaa caaaaaagta tccctcctga tgaatggtga   11100
atttcctttc attgaaatag agagttggga cacgtctcat ggttctctct ttgctttggc   11160
ttccctctaa ggaaatgaag ttttgttttc aactataatc gcttcattta gcgaaagcat   11220
tctgataaag ttttttcttcc tcctcgccat atacacctt ttccttggct cttgccttta   11280
```

6974

```
aaaaaaaaaa caaaaaagag tcttcagttt tcctgaatct taatattttg ctgcttcaaa    11340
tccttttttgg cagtggcaga gcacaagttg tgctttgctt ttaaagtttt tgaaaaaata    11400
tttgagtgct tatggaaaac agaattctta aacctataag ttcagatttt aatgtccagt    11460
ttccctgaag gaaataggcc tgtatttgat aattatcaac aaaaaaaagt aataagatcg    11520
agttttccag gccgggcgcg gtggctcacg cctgtaatcc cagcactttg ggaggccgag    11580
gcaggcggat cacgaggtca ggagatcaag accacggtga aaccccgtct ctacgaaaaa    11640
tacacaaagt tagccgggcg tagtggcggg cgcctgtagt cccagctact gggaggctg    11700
aggcaggaga atggcgtgaa cccgggaggc ggagcttgca gtgagccgag atcacgccac    11760
tgcactccag cctgggcgac agagcaagac tccgtctcaa aaaaaaaaa aaaaaaaaa    11820
aaaaaggat cgagtttt                                                11838
```

<400> 9407
```
gaaaaagaat ctcattttgt ttcacacact ggcacctggt atggagatca acagttgctc      60
aaaggaattt taaataatta taatgtgtta atagataatt aattgggaat tgattctgca     120
aggcaaagtc aaacatttgt tttataattg tgcagttctt gcaagagatc acctatactt     180
ttttttcccc atcaggtata atgggtctct cccaaatggc gatagaggaa ggaggaaaag     240
taggtttgct ttgtttaaaa gacctaaggc aaatggggtg aagcccagca ctgtgcatat     300
tgcttgtact cctcaggctg caaaggtaaa aaaaaaaaaa aaaagctaca taaattaact     360
tggagaattt gaaagacttt tatgtgttgt ttgtattctc tagcattccc cttacatttc     420
tatttcagaa attgcctttt gtttggattg gagaagagac tttggagaca tggtatttga     480
agagctgcca tatggaaggg gaattggact tttaaaaaaa aaatgacaaa ccaggatcag     540
tgggtggaaa ttagaaggaa acactctgtt tccttattaa aagaggtggg atggggggaca    600
gggctttatc tagtacttag aattatgcag ctgtctgccc tgagaagtgg gaagttccca     660
ctctgttact agaggggtct ccctggactg gatgaagaat gtgatgtata atatgtgtat     720
tcaggtatta gaagcacatt tggatgaggt aattttttaaa ctaagggtct ttacttaaga    780
ttctttgtat tggttgtatt catttttggt ttataacttc atatatttga gcatagtacc     840
ttgcacaaag tagacctcaa taattattaa gttgaatcaa agctatgaag gcaatatcca     900
actgcatcta caatataact tctcaacccc ctagcctatt tcatgcttct agccccttg      960
tattcttcta acaaaatttc cagaagctgg accaccattt caggatactt gggctttcc     1020
tagagtgaca gacaaggagg gggaatttca catctttata ttttctgtga attcatctgc     1080
ctccaatttt ataacactga ctttgtgtta caaagaattt aatattgtaa tgagcaaata    1140
agaaaaatta gaaagagttc tttgactcct ggaagtacct gtatctttag ctaagtagcc    1200
ctaggatgta cattaatatt ataccatctg aagcatatct ttgtaaatta aataaacaag    1260
agacagaaaa attggcatat gatgtggttt taggttgcag cttcagtgtc tgaaggtaat    1320
tggcttttca gctttgtttt atatccagtt tgattgtga aagaatcctt aggccttgac     1380
taggactcct ctgttactat ttgggagcca gttggtgcag aaaagggaca gtttctttt     1440
gctcctttgg cgagaaggaa tatactaagc aggtggtgga agtaaacctc agattgattg    1500
aatctgagga gcttcttaca gtagctcccc ccggagtgct cttgacattt tgggtatgcc    1560
acttttcat tgttcagtac tttcccacat actacaggac atttataggt ccttcaccca    1620
caaaatgcca tttgagcctg caaatcctcg taacagccaa aaaatgcaca gcatattttc    1680
agatgcccct tagactgcta atactacctc tggttgaaaa ccactatcag ggaaaatatt    1740
tctaatccct gcctctgtaa taccatattc tgtacttttc ttcctatttt actctgccat    1800
gccctcatgt tttcattgtt atctctttt catctttcat ctttactagg caataagaat     1860
cttagggatc acagattgac tcttggctgg gtgcggtagc tcacacctat aatcccagca    1920
cttgagaggc caaggtgggc ggatcacttg agctcgggag ttcgagacca gcctgggcaa    1980
catggtgaaa ctccatctcc accaaaaata caaaaaatta gccaagcgtg gtggcatgcc    2040
ccgaagtccc agctacttgg caggctgaag tgggaggatc acttgagccc gggaggcaga    2100
ggctgcagtg agctgagatc atgccactgt actgcagcct gagtgacaga gtgagaccct    2160
gtctcagtta aaaaaaaaaa aaaaaaaaag attgactcct cctctttaaa ttttggagga    2220
atgtatttgt gaggtcatga tgaaaattaa gcattagtc tggcagtcat ctgggatgag     2280
tagttaaaac cctgcgttct aggccagtga gactcaaacg taacttgaca tagttttat    2340
tctcagtctt agagtaggtt taataactaa caaacaaaga ttacaatttc aaagcacata    2400
aaaaccaatg ttttaaaatc tctttagcca ctaagaatta atttttcaaaa tactgagtaa   2460
ttgtttcatt gaaaagtgag ctgtttaacg gggcacagtg gcacatgcct gttagtccca    2520
gctccttggg aggcagaggc aggaagatca cttgagcaca ggagtttaaa gctgtagtgt    2580
```

```
gccattttcc tgcctgtaaa tagccactgc acttcagcct ctgccacata gcgaaacctg    2640
gtctcttaaa catatatata tgtatatgtg tgtgtgcgtg tgtatatata tatgtatata    2700
tatgtttaaa acttgtaaaa caattatata gtatatatga atacctaaat gtgtagaaag    2760
aaatatgtaa aacatgcatg taaatgatct acactgcatt cttgaggttg gatacctctg    2820
tagagaaaag ggaactggga gagacatgta ggcagcctca attgtatctg tagtttaatt    2880
ccttaaaaaa atcagacgca ggccaggcac aatggctcac gcctgtaatc ccagcacttt    2940
gggaggccga ggtgggtgga tcacgaggtc aggagttcga gaccagcctg gccaacatgg    3000
caaaaccccg tctctactaa aaataaaaaa ttagccgggc gtggtggcat gcacctgtaa    3060
tcccagctac tcaggaggct gaagcaggag aatcacttga acctgggagg cggaggttac    3120
agtgagccga gatagcacca ctgcactgca acctaggcga cagagcgaga ctctgtctcc    3180
aaaaaaaaaa aaaaaaaaat cagaagcaaa agtggcagta ttaagctttg ataaagctga    3240
gtcgttagta taatctcttc tatatttgga aatagggtat ttctgtattc tctttgtata    3300
tttggaaatt tgacagtctt aaagctgttg tttttaaggct ttatctatta cagattagtt    3360
gcaaattgaa accaagtaaa agcttatgat gccaaacttc taattaagaa ggattttttc    3420
atttagcttc tttgctgtat ataattattc tcttctttgt gtctgtttta tgcagcccat    3480
ttctacttcc tttgtgtgat gactagattt ttcccctcct ttgatattat cttcaactca    3540
tatacataga aaacacttga aaacaaaact gaaaagttct tttagcaat gttttttagtt    3600
tgagataaat cagaagtaca gtcataagca ttacatccct ttcctttggt aatgtttaat    3660
cattctatga atgtttcttt tgtttttttt ttttaaattt ttttctttta tctcctggga    3720
ccaaatccca aatgcatttt tctgtatctc acccagcata tggccaacat ttgtcatctg    3780
tagagtcaca aaatggttag aaaaccagtt aacttggctt atgagtgaac tttatagctc    3840
tctgaatgac ttcaaaaata agattcctct tattttgcaa gatttcttta tcagagcagt    3900
actattgttt tctgtttttta tgtgggattt ggttttgatt ataatttaaa atacttaata    3960
agggagtcta gtggtttgat aaaagaaaat tatgggccgg gcgcagtggc tcacgcctat    4020
aatcctagca ctttgggagg ctgaggcagg cggattgcct tagctcagga gttcaagacc    4080
agcctgggca acatggtgaa atgccgtctc tactaaaaat acaaaaaaaa ttagccaggc    4140
gtggcagcgt gcacctgtag tcccagctgc ttgggaggct gaggtaggag aaccacttga    4200
acctgggagg cggcggttgc agtgaaccga gattgcacca ctgcactcca gcctaggcaa    4260
cagagcaaga ctctgtcttt aaaaaaaaag aaagaaagtt atgtttttat tctgtaactg    4320
cttctaaata ttcttcagta ccccattcaa cccgagaaac tactgtcaca gctgacagga    4380
gttattaacc tctctaaatt tcagggggaa aatgtataaa tatgtcatgt atttgataaa    4440
tagttttccc tttttttaat gaaaagatta tctgattgga ttgacctgcc tactaatttt    4500
tgctattaac tttttcattc ttaggcaata agcaacaaag accagcatag catatcatat    4560
actttgtctc gggcccagac tgtggtggtt gaatatactc atgacagcaa cacagatatg    4620
tttcaggtat tacaacatct taaatttttt ttcttaagaa acgaaaaagt taaaaatcta    4680
ttgttggtga cttttgctga ggtcagagga ttatcagatt tttatattgt attttattaa    4740
aatatagatt gattgctaac ccttataaat agaagtcaat ctagcatggt tgagatgggc    4800
tccagaataa gaattactgg taaatattac ataaccatta tatgcctcag tttcctcctc    4860
tgtaaagtgc agataataga ctctccccta tgactgttaa gaggcttaaa tgatctagta    4920
catgtagagt actcagcact gtgccaggca cttagtaaaa acacttagtg aatagtagct    4980
attatccaaa aaagaaaaca gtaaatactc tgcatacatt tatgactttt tctaccacta    5040
cctcccacct tcctctctag acaataaaca atccaggcac ttgctaacta tttgtattat    5100
ctatgtgaaa tcaaaccttt ttctcagcat gtatttggtc aatgctactc atgcaataaa    5160
agtattttc tcttactttt tgtaccaatc cagtgctgat attttataaa ctgatagatt    5220
ttaggacagt cagttccaaa gatgtaaata gaatccttga tcttctccct taatattgag    5280
ctctctgaag cttaggcttt ttaaaaacaa acttaagtac aacataaatt gcctgataat    5340
gttgctttta taattattgt cacattgact tccattttc tttattttac aaggcaaata    5400
aaagtgaaaa gacctggaaa tatatttaat ttcagtcaat agtgaaatat ttctttgaag    5460
ccactccctc tgcccaaccc ttttaatgag atgagatact gaatttcttt tctctagtta    5520
atattagaat gtgggcattt attatgtttt cctcactttt accaaaaata aataagatct    5580
ttaaggaaga ttaatgttta gatccaagaa aaaccgaaca caaagctttta ggatgatttt    5640
tcacattttg tttcactgac aagcagtgaa aatgaatgag cttagctttt ttttaaaatc    5700
aagatgctac taggcctgta gtctcagtta ctcaggggc tgaggtggga ggatagcttg    5760
aggccagcct gggcaacata gtgagacttc gtctctttaa taaaatatag ataaatatat    5820
atgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtatctccaa gatatttggt    5880
cacaggctag aattttagct tcagaaagta cgttatattt atttgtttac cgcttatctt    5940
ttgtagatga ggttaactga aatcttgtga gttaaagatg atagagttac ttgggggcaa    6000
aactgaaatt aaaccaggca tcctgaattc tgaaacaatg tcttcaccat ctaatgaagg    6060
cccttgaata agttttaaca gtttgggttt tgtcttttc ataaagtaga gaatttttccc    6120
cagtatcata aactgattat gcccttctta caggtattat accttttggaa aatccaaaca    6180
tttctgcatc aaaaagactg tgatgtatca gaaactacct tgataaacta gccagtcttt    6240
```

6976'

```
gaggaattgt actggaaaca ttctaggatt gtctaccctg taaactgaac aagaacattt   6300
attgttcaag tcatcagata ttccaactcc aactctatgc cttgtttgtc actatgaagt   6360
acataaggga gacattacaa gctgattaca tgcctaggtg ctgtactgac cctgtaaatc   6420
ttaagcacat tgattgtgtt gaagaaggat ggagaaaaga ctttacactg gtgccttttc   6480
atgtagatct ttttatcagg ttaagtagga tttttgccag caaccggtag aaaagcattc   6540
tagcaaaaga gatggcaaag aagcaaagaa gtagtacaca gtgtggtgaa agattgacga   6600
ataagctgtt gtagcttgta tacacaaata gcaggaaatt cggctggatt ggtagatggg   6660
aggcaaatct tgagtcagtt tctaactatt atcagaaata ataaactaca aattttggat   6720
aagctataag gaaccattga gttttctcat gagggtaagg gagagtaaca aaagagctgt   6780
atttttaatg ctaataatag caggggaaga attattaaca atcatatttt ggcatctgat   6840
cacattcatg gtggtttttt tctctttata gatacttaag tttcttcctt ctcattgtca   6900
ttacaaatat tgcttcagtg tcttaaatat tctcttccaa gacccagttg aaatgtcagc   6960
tctctggaac agtctctttc caaataagtg ctacttctgt tgattctgaa tattagttca   7020
atccttggcc tatatctttt agcttttaaa gagccttttt atttggggga atatttttg    7080
tttcaaagat ctgaggccat ttaaggtatc tttattttta agaataaaga aaaggaatat   7140
ccaatcttat atttgttaac tagtttccct ctaaaactat ccaatctaaa taaaaagact   7200
ttatacttga cagttggaca aaaacactaa agaggtttat ctgaaagtgt gccgatatga   7260
ggaacttgag gctaaaatat gtaaagaatg acttttaaga gtctttatct ttgtagaggg   7320
tcagtatttt ttctcagtac ccacattctt caattttatg gtactacttt ataacaaata   7380
cattcatgaa ctgataattt ccaaatgttt gctttaaagc cccgtgacac ttgtcacttt   7440
tgtcatctcc ccattgattt cctttttttct ttcaactttc aaaatgaaat taacttattt   7500
actagctagt acctctgaag atatttttaa atctctgaca cctcactcat ccagaactct   7560
tatctgggaa ccttgtctct ctgaaatatc cctaagaacc aggaagagta tatatataaa   7620
ataaatgcca caaagttgat gtagtgaaat tcctttcta ttctccctag aggatccctt    7680
aggctctcac cagaaccttt tgaaatactt ttctctgaaa taggttattt gatttctcaa   7740
cccataacag agtaagagta gccagttaaa agaggggctt gttgctggaa acaagcatga   7800
ccaaaaacaa ggagtgatag ctgacaacct gacagaaaag aaacaagaaa atatatgaag   7860
tatacataag acctcaaagc aaggctgtgt aagcccttga cataaggacc agcagccttg   7920
tatacctctt gtagcacctg aagacatcac tgcatttcag cttaacgtaa gtggtattta   7980
tagtgtaatg ttctgcagtc atcctaaaag atttacttat atatgttcac tatattctgt   8040
taaataaggt agaatatctc tttaaatatc tctaaagaga aaaaacctac atgatacaca   8100
tatttccatc caaaagggtt aaaattaaaa tctgcagcca tctagaaatc tcagccgttc   8160
ctgaattctt cattccctaa gggtttcgta tattattgta agttctcatt taattccatg   8220
ctctaagtga ttacttcatc agagacagtc tgactgatta gttttcaaga gtatagatgc   8280
ccccagcgtt aagtatggta aacttcaact ttagaaattt cagagaccta atgttctctc   8340
cttattgtgc ccttcttgaa tggattttcc actgtgctct ttgaatgggt ttataggtat   8400
tttttttttt ccctcagatt ggccggtcga ctgaaagccc cattgatttt gtagtaactg   8460
acacggttcc tggaagtcaa agtaattctg atacacagtc agtacaaagc actatatcaa   8520
gatttgcctg cagaatcata tgtgaacgga atcctccctt tacagcacgg atttatgctg   8580
caggatttga ctcatcaaaa aacatctttc ttggggtaaa aagctttttt tctaaatgat   8640
gctttctttt atactagctt tcattccaag ttacaagtta caagttggaa gctcactgct   8700
attatttcta ctaggagaag gctgccaaat ggaagacatc agatggacag atggatggct   8760
tgaccactaa tggtgttctt gtgatgcatc cacgcaatgg gttcacagaa gactccaagc   8820
ctggaatatg gagagaaata tcggtgtgtg gaaatgtatt tagcctacgt gaaaccagat   8880
cggctcagca gagaggaaaa atggtaaata ctgaatggta ttttcttaat tagctacaat   8940
aaacacatag gatgagtaga actgaatgca ttacatacat tccagaaaac tcttaaatct   9000
attgccaaca cagaatacta agtctatcaa acactgacta ccaaattcta tactagagga   9060
cagtctcttt aatatttcgt ttagtagccg ggcgcggtgg ctcacacctg taatcccagc   9120
actttggaag gccgaggcag atggatcacc tgagatcagg agttcgagac cagcctgagc   9180
cacatggaga aaccctgtct ctactaaaaa tacaaaataa gccaggcatg gtggcgcatg   9240
cctgtaatcc cagctactcg ggaggctgag gcaggagaat agcttgaacc tggcaggcag   9300
aggttgcggt gagccaagat tgcgccattg cactccagcc tgggcaacaa gagcatttta   9360
gtaaactctg gaagttcatt cttctgtcat atcatgttaa tatatttaa aacctaagct    9420
ttcttaaact aaacagcact ccctctgatc tttctgttg ccatctgtat atcttaaacc    9480
atatttacct cattaaaaat attagactta ttgattagcc agatgtttta atcataagtt   9540
gtctttacca taaggctaaa aagaaatatg ttaatgtttg atattttatc cttgatttc    9600
aaacttaaca tttttcataa ctactgtcag tttcttgaat atttagtgaa aatcctagga   9660
aacctcattt cttgagtaag gagtacttaa aaccaaaaca cttatgtaaa aatccaaaac   9720
agagtggtga atatgttttt caactcttgt ctcctctagg tggaaattga aaccaatcag   9780
ttacaagatg gctcgttaat tgacctctgt ggtgcaacat tgttatggcg tactgcagaa   9840
ggcctttccc acactcctac cgtgaagcat ttagaagctt taagacagga aatcaatgca   9900
```

6977

```
gcacgacctc agtgccctgt agggttcaac acactagcat ttcctagtat gaagaggaaa    9960
gacgttgtag atgaaaaaca accatgggta tatctaaact gcggccatgt acatggctat   10020
cataactggg gaaacaaaga agaacgtgat ggaaaagatc gtgaatgtcc tatgtgtagg   10080
tctgttggtc cctatgttcc tctgtggctt ggatgtgaag ctggatttta tgtggacgcc   10140
ggccctccaa cccatgcgtt tagcccgtgt gggcatgtgt gttcagaaaa gacaactgcc   10200
tattggtccc agatcccact tcctcatggt actcatactt ttcatgcagc ctgtcccttt   10260
tgtgcacatc agttggctgg tgaacaaggc tacatcagac ttatttttca aggacctcta   10320
gactaacaga ccattgtctt gcaggactac attataaatt tataagctaa gtgagttggg   10380
ttttcgaacc tgttgtccac gtcacagttt ttctgctctg gtcatttgca ttaagatgaa   10440
gaattttta aaacatttat aataaatagt agcaatttct gagcaaaaat ctgggaaact   10500
caagcaaagg aatttctgaa agtatcagtc ttctgaattc tgagttttga aaatatattt   10560
tgaggagaaa aagacatagt ctaatttgat gccttccttt tagtgttttt gaatcaccta   10620
tcctcagtgc tgaaattgtt ttgtataact gagggtactg ttggttcaaa ctatgttagt   10680
ttacagtttg ttgcaaacat tgtaaaatac agcgacatgt atattaactt ttttctattt   10740
atctttatta tagaaaatac cttagaatgt tcttgataga gtagcatggt aacgatggtg   10800
tcacaccctt ggtgtgaatg gtagcttagt gagcaaccta gctcaaggat ttgcaaagtt   10860
aggaagaagg acgagagagc ctctctcccc accccaatct aaatatggaa tttggtaaat   10920
tagaatactt tgtaatttgt aagaccaaat tcatactaat tacccgcgtg aaaggtgttt   10980
gttttaaca acattgaaga taatcaggaa agatttttc ttaatgtttc tctcgagcgt   11040
agtactataa caaaaactta atgctaagaa acattttata tgctcctttg gatatgcaat   11100
ttaatctaga ttatctattt ttctcccatg ataactaatc tgtttttagt atcagcagca   11160
tttggcaagt ttatttttg gatataaact gtggttcatc tgttcactgt ttctagaaaa   11220
aaatcattgc cataagaaaa agtataaatt agcaagaaag gagagtgact tgatttgctt   11280
ttggaaaaag aaatgcttaa ttaattattc tgtatttggc cttattcggg cattaggaaa   11340
tctagagatc taaagggttg aatgacaata gtgcccccgt ttttagcaga ccagccttaa   11400
ctctgggttt gaatcctaag gagattgcca cagtgagact taaggaaatg tttggttggc   11460
agatgagcac caatgactgc agcgtggagt gacgcactgc atggtctgtt tattctctaa   11520
ttccaatatg tcttttgctt ccagaagcaa gaaaagtttc ttctctcccc tccttcccac   11580
ccttttttca aaggcaccac aagtatagac agttgcacta catcaaatct ttttttgaca   11640
cttgtagaaa ccagtacact tttagattag acagtatctt cttttaatat tttgatttgt   11700
tttcctttag tttgaaaagt tgtataatac ttaactgact gtagcaaagt tttatatgtg   11760
gtagcatacc tttaatttat cctattacaa aactgttctg aattttcttt tggttttaa   11820
aaaacaaaac ttgttgctta gaagccatga attattttat tttacttcaa ctgtcgaaac   11880
ttccttgttt taaaaaatga tcatttgggt tcactcagga aatgcatgtc aggaaacttg   11940
tattataagt ttattagttg tgatgtatca gtaactgctg ttaccccttt ttcaaagaaa   12000
tgtaattgat tttgaagttt tctagattgt cacatgcttt gtgactaatg caagaaagca   12060
agtcctgtgt tgtatttgtt ctagtcattt ttattcaggc tatatattgt agcttaattt   12120
ttatttgcaa ttaatttatt taaactaagt aaatactttt caaaatacat aattgaattc   12180
gtctctgtga gttcattttt gcataatcga gaatgagaaa ccagaagtga aaactgtgaa   12240
caactctatt ccacactcca aaaatactca tttgaaatag atgaagagtt tgcatttaat   12300
gtaacacttt aaagtatctg gttctttttt aaaagcatct cttactaata aaggaacttt   12360
gttagtggtt gaataattga ggccttttct aagttaagcc ttgctaggga gttggcacct   12420
gtaagttgca tgttagacta tttaaatagt ggcttcgtaa ccataaaagt tgcacgtcct   12480
tcccaaagtt gcctgcattt tcttctaaca ggtaaaaaca atctcttcta acaggaaaa   12540
acctggctca ttttctatca aattcaagtt ttaaaaattc aggcaattta aatgatcagt   12600
tgggtgtttg ctgttcaagc agaactgtta ttttgtcatg gcctaataga acactttac   12660
ttagttgtat taagggaatg tcagtattct ggccaaggag gagaaaaagt tgtatttagg   12720
tcttctaaat gcattctcaa gaaagataat ctttatggct taactctttt atcaaagtaa   12780
tctttatatt taaatgctac ttaatttgtt caaggaatta aatttcccctt tatctaaaat   12840
gttagggtaa tgaagcaaga catgaaggga agccattcag acatcagagt tcttttacta   12900
ggttatcctc ttgcaacctt ctttgcttac ttccctcatg taaaagtctt ctagtacatg   12960
taaagcaggg taggaataaa taataatgta agtatgtaat tacttcttct tttttttttt   13020
ttttgagacg gagtctcact ctgtcgccag gctggagtgc agtggcgtga tctcggctca   13080
ctgcaagctc caccttccgg gttcacgcca ttctcctgcc tcagcctccc aagtagctgg   13140
gattacaagc gcccgccacc atgcccagct agtttttgta tttttagtag agacagggtt   13200
tcaccatgtt ggtcaggatg ctctcgatct cctgaccttg tgatccaccc actttggcct   13260
cccaaagtgc taggattaat tacttctaac atttgagtgt cccacttcac tcttcccgtc   13320
tgacccagac tgagggcact ggtgaaagtc cacttattat gtctctaagg ttataagctc   13380
aacataactc taacactttg gcccttcgtt gcaatggatc atcttgtgct accacttctt   13440
tttttgttta agacagggtc ttgctctgtt gccgaggctg gactgcagtg gtgcaatcac   13500
agctcaccac agcctcaacc tcccaggctc aagcaattct tccacctcta cctcctgagt   13560
```

6978

```
agctgggact acagatacac accaccattc ctggctaatt tttttcattt tcagtagaga  13620
cgccgtctga ctagatttcc caggctggtc tcaaactcct gctcttaagc aatcctcctg  13680
cctcagcctc ccaaagtgct tggattacag gtgttgagcc accacaccct gctgtgctac  13740
cacactttag agaccactgg ttaataaacc tatgttccat tcccttctct gttttctcta  13800
agcactgccc tatagcaaat cagaacagca aaactctgca tcactgaact ctgttattct  13860
gtctgtcacc cccactttca gaattactct tatataagta ttctttaatg ttttatcctc  13920
aaattttatc tactttttt ttttttttt tttttgaga cggagtttca ttctgtcgcc  13980
caggctggag ggtagtggtg tgatctcggc tcactgcaac ctctgcctcc cggcttcaag  14040
caattctccc tgcctcagcc tccccaagta gctaggatta caggtgccgg ccaccacacc  14100
tggctaattt ttgtattttt agtagagacg gggtttttgcc atgttggcta ggctggtctc  14160
gaactcctgg acccaagtga tccacccacc tcggcctcct aaagtgctgg atttacaagc  14220
gtgagcacca cgcccggcct ctgctttctt aaaacagatt tttgtatacc cactgtgtgc  14280
caagccctgt cctaaaccgg gtgatatagc aggaaaaaaa aaatccctgc cttcatcgtg  14340
tttgtattct agtgtacaag atagaaataa gcaagaaaaa gtaaatatat gtatatatac  14400
aatatgatag tgaactgtgc tgaggggggca aataaagtag aaagaggaga tgcagatgca  14460
aaatgtcata tgctggggca ggaggagaag tgtttgcaat atcaaacagg aaggctaggg  14520
aaagccccac tgggaaggtg gtatttgaat aaagctctaa aagagctgaa gagagaaggg  14580
agtggccact tagaggggca tttaggcaga gagctctaca aggcccttgc aagggcctga  14640
aatagaagca tgtctgggat atttctacaa tagcaaagag gcgtgtgatg ccaagtggta  14700
tgaatcaagg aagagtagca ggtaaggtca aagaagtaaa acgacagaat ttaagtgaca  14760
gatggggatg acaatagatt atggagagcc ccctgggatt tatggctta attctgaatg  14820
agattgggac attggagggt tttgagcagg tgagtgactt gatgtgacat atttaatagg  14880
atctgaatac actgaaggtg ggatcaggga gaacattgca gtaatcctgg agataaatca  14940
tggtttggat aaggtggtgg cagtggaggt ggtttgaaaa gtgatcagat tctgaatgtg  15000
ttttaaaggc agacctgaca gcatttgcta gcagatcagc tacagggttt gaaagaagag  15060
ggatcaagga tgactccact caatcagcct cagcaactgg aaggatggaa ctgccatttg  15120
ttgaagtaga gattatagga agaactgttt aggggatgag gctcactggt ggaggaatca  15180
ggaactccgt cctgagtgtt agactgaggc acctgtcaga cgacatttgc caaaggaagg  15240
acaactccac ttataactac tatcaaagtt ctcaaccatt atgatcagtg ttctctgtat  15300
accccacgct agcttagaaa caaacaaaaa agtatccctc ctgatgaatg gtgaatttcc  15360
tttcattgaa atagagagtt gggacacgtc tcatggttct ctctttgctt tggcttccct  15420
ctaaggaaat gaagttttgt tttcaactat aatcgcttca tttagcgaaa gtattctgat  15480
aaagtttttc ttcctcctcg ccatatacac cttttttcctt ggctcttgcc tttaaaaaaa  15540
aaaaacaaaa aagagtcttc agttttcctg aatcttaata ttttgctgct tcaaatcctt  15600
tttggcagtg gcagagcaca agttgtgctt tgcttttaaa gttttttgaaa aaatatttga  15660
gtgcttatgg aaaacagaat tcttaaacct ataagttcag attttaatgt ccagtttccc  15720
tgaaggaaat aggcctgtat ttgataatta tcaacaaaaa aaagtaataa gatcgagttt  15780
tccaggccgg gcgcggtggc tcacgcctgt aatcccagca ctttgggagg ccgaggcagg  15840
cggatcacga ggtcaggaga tcaagaccac ggtgaaaccc cgtctctacg aaaaatacac  15900
aaagttagcc gggcgtagtg gcgggcgcct gtagtcccag ctacttggga ggctgaggca  15960
ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagatcac gccactgcac  16020
tccagcctgg gcgacagagc aagactccgt ctcaaaaaaa aaaaaaaaa aaaaaaaaa  16080
agatcgagtt tt                                                      16092


<210> 9408
<211> 265
<212> DNA
<213> Homo sapiens

<400> 9408
gttttatgca gcccatttct acttcctttg tgtgatgact agattttttcc cctcctttga    60
tattatcttc aactcatata catagaaaac acttgaaaac aaaactgaaa agttctttt    120
agcaatgttt ttagtttgag ataaatcaga agtacagtca taagcattac atcccttttcc    180
tttggtaatg tttaatcatt ctatgaatgt ttcttttgtt tttttttttt aaatttttt    240
cttttatctc ctgggaccaa atccc                                        265


<210> 9409
<211> 1477
<212> DNA
```

6979

<213> Homo sapiens

<400> 9409
```
tagtgctgat gaggtgtgac aggggctagc aagaaagaaa gaaaaagagt tccctaagta    60
agctcctact gggtgtcctc cactcacatg gagacagggc cctgcctttt aggcacttac   120
tcttccagtg tctattgcat aatatgttca ggaaggatcc cagattcaaa gatttataga   180
attagagtta aaagggatag atatcttgtt tgaccctgaa aaaattaagg aatatgcttg   240
agatattcaa tggcagaggc tggaatagat tttcccaaat ctcctgatgt gaagttctgt   300
gtttgtcaaa catgactgtg taaaaagatt aatttaaact taatgacatg ttgtattcat   360
agaagttctt tgggtttctg tggaaacctc ctcttgctag cttaagcaga aatggggggat   420
ttattggaag gaagctgaga tattgcacca aactgcacaa aattgaatga agagctgact   480
aagcaaggct gcactgagaa ggaaccaggg tggtctgggc tgtggtagcg gcagcagcag   540
cttgcagatc tcccagcgct gatgctggct cgactcagac aggtctccac tctctgctgt   600
ctgtctctgg ctcagacagg acactttgtg tggctgtttc cttccacaag gcctcagtgg   660
gagcaagcca gcctcccaca ggcctctgag acagaccacc ccattcctcc ctctcctgtt   720
aacctgcctt tatttcctta attgcactta tcaccatgca gaagcctatg tgtttgttcc   780
cctgtggaga tgtaaaaaca ctgatgccca ggcctaactc ccagagactc tgattgaact   840
ggtctgggct atggagccgg gacatttgca ttttttctac aagctctaat gtgcagccag   900
gattaagaat cattgccttc tgcatcaaca ggacaaatac aaaatgtgca gcaaaatata   960
tgtttaagtg aatcaagaag acagatctag aaacgattgt taaggaataa taatgcattt  1020
tgtccatcac cacacataag tgatgttgac cagagccctc ccagattgag tggtgccagg  1080
tgttcggggt tgtctcggtt aatccttact atggccttgc ggggtagggg gcagtgtcct  1140
cattgtccaa atgagtcact gaggctgagg gattcaggct cagtgtatgc ccacagttct  1200
ttggcaaacc ccaccactgg gccagccaac tacacgggga ttctgatcgg gtcctgatgg  1260
gtgcccatga tgggctgtgc aaaagtggtg gtgagatttc tccaccttca cggaggtggt  1320
acccagggga ggtggacttc agcagcgaga atgggctggg tgcagtggct cacagctgta  1380
atcccagtgc tttgggagtt cgaggcagga gaattgcatg agctcagttg ttcgagacca  1440
tgggagaccc tgtctctaca aaaaaaaaaa aaaaaaa                            1477
```

<210> 9410
<211> 1474
<212> DNA
<213> Homo sapiens

<400> 9410
```
aaactgcagt ttaaaagtgt ttatatcctg gatacactaa cagcattttg tccaacttgt    60
ggagtggagg gagtaggggaa ggggaggata gtgctaatga actgtgacag gggctagcaa   120
gaaagaaaga aaaagagttc cctaagtaag ctcctactgg gtgtcctcca ctcacatgga   180
gacagggccc tgcctttttag gcacttactc ttccagtgtc tattgcataa tatgttcagg   240
aaggatccca gattcaaaga tttatagaat tagagttaaa agggatagat atcttgtttg   300
accctgaaaa aattaaggaa tatgcttgag atattcaatg gcagaggctg gaatagattt   360
tcccaaatct cctgatgtga gttctgtgt ttgtcaaaca tgactgtgta aaaagattaa   420
tttaaactta atgacatgtt gtattcatag aagttctttg ggtttctgtg gaaacctcct   480
cttgctagct taagcagaaa tggggggatt attggaagga agctgagata ttgcaccaaa   540
ctgcacaaaa ttgaatgaag agctgactaa gcaaggctgc actgagaagg aaccagggtg   600
gtctgggctg tggtagcggc agcagcagct tgcagatctc ccagcgctga tgctggctcg   660
actcagacag gtctccactc tctgctgtct gtctctggct cagacaggac actttgtgtg   720
gctgtttcct tccacaaggc ctcagtggga gcaagccagc ctcccacagg cctctgagac   780
agaccacccc attcctccct cctgttaa cctgcctta tttccttaat tgcacttatc   840
accatgcaga gcctatgtgt ttgttcccc tgtggagatg taaaaacact gatgcccagg   900
cctaactccc agagactctg attgaactgg tctgggctat ggagccggga catttgcatt   960
tttcttacaa gctctaatgt gcagccagga ttaagaatca ttgccttctg catcaacagg  1020
acaaatacaa aatgtgcagc aaaatatatg tttaagtgaa tcaagaagac agatctagaa  1080
acgattgtta aggaataata atgcattttg tccatcacca cacataagtg atgttgacca  1140
gagccctccc agattgagtg gtgccaggtg ttcggggttg tctcggttaa tccttactat  1200
ggccttgcgg ggtaggggc agtgtcctca ttgtccaaat gagtcactga ggctgaggga  1260
ttcaggctca gtgtatgccc acagttcttt ggcaaacccc accactgggc cagccaacta  1320
cacggggatt ctgatcgggt cctgatgggt gcccatgatg ggctgtgcaa aagtggtggt  1380
gagatttctc caccttcacg gaggtggtac ccagggggagg tggacttcag cagcgagaat  1440
gggctgggtg cagtggctca cagctgtaat ccca                              1474
```

<400> 9411

```
atcgttatga ttggttttgcc agcccggggt aaaacctacg tgtccaagaa actaacacgc      60
tacctcaact ggattggagt ccccaccaaa ggtaagtgtg gctcattccc taggaaagac     120
aattattagt tcctgggcct cacaggtctc tgggagactt attcttcctg gcatcaatgc     180
tatagggtgc ttttggcaga aatagcagtt gctttctggt ttactggagt tattctctat     240
tcccagactt gtctcctcct ggcgtgggtg gattggccta gttttgaggg aatgcctttg     300
ataggactgt taagatttag atgagcatag ggctgtacct tttcagaagc cttacatgga     360
catcatctta tataaccta gcagtgtctc tgtgaaatag acagagtggc tgaggaaatt     420
gaaacctcag acagcttaag acttgtccaa ggtctagaaa gtcagggctt gaacccaact     480
cttttgactc ttaatctgat attgttccca acctaccatg ctgccgcttt tttcatcccc     540
ttggtcactc cgacattagg ccaagaaaca agtcccattt ggtggggcca tcatattatt     600
ttgctgctga aggatttggg tgtcttctac agtgtttaat cttggggtgt atcggcgtga     660
agcagtcaag tcctataagt cctacgactt ctttcggcat gacaatgagg aggccatgaa     720
gatccgcaag tgagtcttgt ttaaggcctg atctccaggt cagctctttc ttggccgtca     780
tgagacttgg tgtgacaggg cttggtttca tctcagtaaa tatcttaagg ggaagttaaa     840
tggaagttat ctgatgggca agtgaccttg ggcttgggtg gtcagaagaa cagggctcag     900
ggtgattgat acctgtgtgc ttgtaggaga agtctaaaga gggctaagat ctgtgcattg     960
gggcagggc aggaaggggt tataggatgg tgtgaaaacc ctcagtgaga aagttgaaag    1020
atctagttag agaaaggttt tgaacagtgg gaaactaagt gggcagggat gtgacttctg    1080
tagccacccg aatgtttgtg tctctgactg tttgagctta gctctccttg ctggtttcat    1140
ttgctcttat ggcagacagt gtgctctggt ggcgctggaa gatgttaagg cgtatctcac    1200
tgaggagaat ggtcagattg cggtaagctt tatctgctgc ttcttctttc tggtccccac    1260
ccttgcagca gcctggctac ccagccccac cttgagtctg ccctggtggg gttctgtttc    1320
tctgttcctg ctcatttacc ttgtgtactt tcttcacagg tgtttgatgc caccaataca    1380
acccgggaga ggagggacat gattttgaac tttgctgaac agaattcctt caaggtagga    1440
tctgactcca tgttggagga aaagggatga gtagaggtgg ggagtcaggc tacaggcatg    1500
gatctctcac tctagtgggt gaggacagga tgggatatct gaatctcttc tctcagagca    1560
ttcccccagt ccttgagtgt tttcattcag gtcctttctc agactgttag cctgtatgtt    1620
tgaggcccag gggctgtggt aagagctatg aggaggactt gagggccact ttcatgaaga    1680
aaatcctggg agatgtggtg gctgggtggg gtagatgagc atgtgctctt aattaacagc    1740
ctggcatttt tgacttgctt atcactgcct tctctccatg gccaggtatt cttttgtggaa    1800
tccgtctgtg atgatcctga tgtcattgct gccaatattc tggttggtga cacccctaca    1860
tatcatctcc tcttcacctt ttgtgctgtg tgtgttgtgg ggtgtgtgtg tgtgtgtgtg    1920
tgtgtgtgtt gttgggaaag gggtcctctt tcctaattga aaagaagaat agacatgttt    1980
aacatcacaa agagatcttt tctatctgcc agagccccat ctggtacttc tacactcttc    2040
tcttgggaga ggaaactgag gctttaagga atcaagtaag aattagctgt tgaattgaaa    2100
ccagggttta ggttgtagga ttcttggccc tgtgctctac gtattatctg gatgttgaga    2160
cctagatgtt ggaatagatc agccgggcac ggtggctcat gcttgtaggc tcagcacttt    2220
gggaggccga ggcaagtgga ttgcttgaac ccagaaggat caccttagcc tgggaggttg    2280
aggcacagt gagccgtgat tgtgccactg cagtccagtc ttggtgacag agtgagaaca    2340
tgtccaggga ggttgaggct gcagtgagcc atgattgtgc cactgcagtc cagtcttggt    2400
aacagagtga gaacatgtct caaaaaagaa aaaaaaaaa gaatagatca gactcttcgt    2460
ttcaggactt acctacagga aggttatctc cccagcaatt gtccaaagtt ctcgtcagtg    2520
ttctatacat tgagctcctt attccctgtg gggtcacaat gtaagccagt ccccattgga    2580
tgggttgtgc tctgctggac cgagtagata tctgaacatg gtcttatgca ggtgctctcc    2640
cagccgtagg aacttgggat catctgagga agagccatct ggtcccaagt caggcactgg    2700
ggtcatgcac cctattctga gtggtaatag ggaaacattg gagcctgttc tgtttttctca    2760
ggaaagtaca taaagggatt ggggcccagg agcagctttg gctgcgtgac tgcctctgtc    2820
cttcagccaa gtgcaggcac atgactcccc agttgtctta acttttttgg ttgccagggt    2880
cacaggacgg ggcggggcgg ggcgggggt actcaatgag tggagtgcca atgttccagt    2940
gaaaggcgac atttatggac ttctttttct tttttttagc agtggctatt tgtaggagga    3000
ctgttacggg cagacctctg atgaggcctt tactggttcc tatgatttca ggaggttaag    3060
gtatcaagcc ctgactatcc tgaaaggaac agagagaacg tgatggagga cttcctgaag    3120
agaattgaat gctacaaagt tacctaccga cctcttgacc cagacaacta tgacaagtaa    3180
```

```
ggtttaaggc catggtttga agggcccaag gcaaaggtct catctgggaa aataaccttt    3240
ctccctgagt tctctaactt ccttctgata atctagatct acagtgttaa catcatccca    3300
gagaaataag gtatggattt gtggctttta tgtggattgc atcttgtaca tgaaaaattg    3360
aagtggttgg ttttgttttg ttttgagaca gggtctcact ctgtcaccca ggctggagtg    3420
cagtggcaaa atcagggccc actgcaactg ctgcccccgg ggctcaggtg atcctcccac    3480
ctcagcctcc tgagtagctg ggaccacagg tgtgcgccac catgcccggc tatttttttt    3540
ttttttagt aaagatagag tttcccatg ttggccaggc tggtcttgaa ctcctgagct    3600
caagtaatcc acccgcctcg gcctcccaaa gtgctgggat tacaggtatg agtcactgcg    3660
cctggctgga agtgtttttt atcatcaatt ttttctctcc agtctctaga gcatgatttc    3720
ctcaatctca gtattattgg cactttgaac tgggtaattc tttgttgtag gacctgtcct    3780
gtgcattgta ggatgttcag cagcttccct gggctttgcc cactagatgc cagtaacacc    3840
tccaacctgt gacaaccaaa atgtctccag acatgtcaga ggttccccgg ggggcacagt    3900
tatccctggt tgagaatcac tgctccatat ctgaatgggg gtgttgtagg atacccttg    3960
gagatgtgtc atcagttttt aaagtttata tatattatat gatatttac atatattaat    4020
gcttgtgtgt atatcatgca tattatagca taacatatat attacatatt gcatatttt    4080
atatctatct ctctctatat ataacatgca aagccctcaa gaacatgcct gactcagaga    4140
aatgtctgat caatgccagc tgttgttact atggaagcat ttgttggcag tatggtgtag    4200
actatagatt aacttgtcat gtgtgaggta tatgagccat aacaaaacca agtctatgtt    4260
gaagaaagat ggtgtacaca tggaaatctg caagaatgtg gcctcatgaa agagcatgca    4320
ttcagggcag ttaacagctc tattcacata atacagacct gcagccaagc aaatggcaca    4380
tttaatgtgc atggcacact taatacagtg gtctgtttaa tgttttgagc ctttcagttc    4440
cttcaagtgg gtttcccaga atcccccttaa ttcagaggct gaaaaccacc tctagatatg    4500
gcataaaagt attcttcagt tggaacaaag tcccacctag aaaaacatac agaagatcta    4560
catatatata catgtgtatg tttgtatatg ttatctctgg tagtaggggt gatgcgtgatt    4620
tgcatccttc catcattttt tctgattttt tgatttaaaa taagcactta tgacttttt    4680
tttgagatgg agtctctcgc tcttgttgcc caggctggag tgcagtggca cgatctcggc    4740
tcactgcaac ctccccctttc ctgggttcaa gcaattctcc tgcctcagcc tcctgagtag    4800
ctgggattac aggcacccgc caccacgccc ggctaatttt tttattttta gtagagatgg    4860
ggattcacca tgttggccag gctgttctca aactcctgat ctcctgatct acccaccttg    4920
gcctcccaaa gtgctaggat tacaggcatg agctaccgca tccagccaca cttatgactt    4980
ttataaagag aacaatctca tgttggcctc aaagcaagca atgtctgaaa gtgtctttga    5040
gagaagcatg attaggtaga tgcagggagt atatagacat ttctgtctgt gcttctgctg    5100
cctcttccct tcccctcgtt gctcgtcgtg ccatattctg gccaggtctt aactgcctca    5160
aaagggggcct attcttctca ccaaattttg ggcttagcaa aatcttcagg tcacctagtc    5220
tagcccctga tgggaaggct gaattctgtt tatcctattt atctacatta cttgtcacac    5280
tacaggcact gaggaaatgg tacaaactta ctagaagttc aggaaattgt acttcatctt    5340
ggttttaagg agtaattaat ctcctaccat ttggttccat aaacgtgggt gtgacagagg    5400
aggggaggaa gagcagctgt gagcctgcaa gtccctgtag aaatccttt ccctctgatt    5460
cttattctca gatcttctta cctaggggaat ttttttttttc ctttcctgtc ccagggatct    5520
ttctttcatc aaggtgataa acgtgggcca gcgatttta gtcaacagag tccaggacta    5580
catc                                                                 5584


<210> 9412
<211> 4151
<212> DNA
<213> Homo sapiens

<400> 9412
gggcagtctg gcatgatctt tttggaggta agttgtgcct cactgaaaac taatccccag      60
cccatctttg cctgctttct agccctgtct atcctgaagc gagctcgccg ggagcgccca     120
ggccgtgtag cctttgatgg gatcaccgtc ttctacttcc cccgctgcca gggcttcacc     180
agtgtgccca gccgtggtgg ctgtactctg ggtatggccc ttcgccacag tgcttgccgt     240
cgcttctctt tggctgagtt tgcgcaggag caagcccgtg cacggcacga gaagctccgc     300
cagcgcttga aagaggagaa gttggagatg ctgcagtgga aggtagagag agtcctctcc     360
gtggcgcacc tcctgaggca gctcctggag tcctaacctt gaggggtggg cgtaccaggg     420
gtgggtgctg acttgctcat tatggttatg gggaaacagc ctgtgggcct ggtgattggc     480
ttgattggag cctgttgcct gggttgtctg caacaggagg cgcagaggag ggctcgtgtc     540
tatttgctgc aggggctggg ggcatgatac ctgaatctga acttttgga gagggggatg     600
tgaagttgat atgaactgga ggggtgcgt atctgtctgg ttaggaaagg gagtctgtcc     660
atgatctagg gaatgccatg agtaggatat ctctttttt ttttttcaaa tgccctgagg     720
```

6982

```
gcagttttct tggctgtcct gttcactgtc tgacacacag tgcccatcgc agattaagca    780
cgagtagtgg cggggtaagc acttggggag ggtttgtcta gtgacagtag ggctaagccc    840
atgtccatgt ctgtgcttct cacatccctc tttcctgtgg atgcagcttt cggcagctgg    900
ggtaccccag gcagaggcag ggctgccacc tgtggtggat gccattgatg acgcctctgt    960
ggaggaggac ttggcagtcg ctgtggcagg tggccggttg gaagaagtga gcttcctaca   1020
gccctaccca gcccggcgac gtcgagctct gctgagggct tcaggtgtgc gaaggatcga   1080
tcgggaggag aagcgggagc tgcaggcact gcgccaatcc cgggaggatt gtggctgtca   1140
ctgcgatagg atctgcgacc ctgagacctg cagctgcagc ctggcaggca tcaagtgcca   1200
ggtgtggtgg ctggactggg atggggatcc tgagcgtggg gacttctttg cactccacag   1260
aaccctcact tgtacctcta cttttctctg cagatggacc acacagcatt cccctgtggc   1320
tgctgcaggg agggctgtga gaaccccatg ggccgtgtgg aatttaatca ggcaagagtt   1380
cagacccatt tcatccacac actcacccgc ctgcagttgg aacaggaggc tgagagcttt   1440
agggagctgg aggcccctgc ccagggcagc ccacccagcc ctggtgagga ggccctggtc   1500
cctactttcc cactggccaa gccccccatg aacaatgagc tgggagacaa cagctgcagc   1560
agcgacatga ctgattcttc cacagcatct tcatcagcat cgggcactag tgaggctcct   1620
gactgcccca cccacccagg cctgcctggc cctggcttcc agcctggcgt tgatgatgac   1680
agcctggcac gcatcttgag tttcagtgac tctgacttcg gtggggagga ggaggaagag   1740
gaggaaggga gtgtggggaa cctggacaac ctcagctgct ccatccagc tgacatcttt    1800
ggtactagtg accctggtgg cctggccagc tggacccaca gctattctgg ctgtagcttc   1860
acatcaggca tcctggatga gaatgccaac ctggatgcca gctgcttcct aaatggtggc   1920
cttgaagggt caagggaagg cagccttcct ggcacctcag tgccacccag catggacgct   1980
ggccggagta gctcagtgga tctcagcttg tcttcttgtg actcctttga gttactccag   2040
gctctgccag attatagtct ggggcctcac tacacatcac agaaggtgtc tgacagcctg   2100
gacaacatcg aggcacctca cttccccctg cctggcctgt ctccacctgg ggatgccagc   2160
agttgcttcc tggagtccct catgggcttc tccgagccag ccgccgaagc cctagatccc   2220
tttattgaca gccagtttga ggacactgtc ccagcatctc taatggagcc tgtgccggtg   2280
tgaggaccag gatgtctttt cccagcccca agagacctgt tgctgctttc ttgtaattat   2340
ggggctcccc agagtctgcg taacagtctc ccactggctg gctcacccac aggtgccatg   2400
tgcacactcc tggttttcaa acaattctct ggatttattt atttgtttta acttttctgt   2460
gctgaagaga ggactagggg gaggggcttc ccccttcag ctgcccggcc ccccacaccc    2520
acagcttgct cttctatctc cacaacgtga gcctggaaga ggagaaaatg tggctcctct   2580
ggagcttggc agaccacttt tcggtctttg cgtgatgttc cttagcccaa agacggtgag   2640
acaggctga aatcaggtgg cttctgccac cctgagccct agacccatgg gtggctaaat    2700
ccactggact gtgaagacta aatttatttt ccataattta tttggagatt gaggaggctt   2760
tggttgcact tctttggctg gtgggtaatg ccaggggtgg ggtgggcaca ggcctcaaga   2820
gccccttttg ccttgtagtc ctacaccttg ccctgcctgg gctttggtgc agactaggtg   2880
tggatttgag ctctgtgatc tatgtctgct gcctggctcc tagatggctc tgcgggcagg   2940
tgctggccaa ggacatcatc taggcagggg gagagcctgg gctgaacagc tgtgaccaaa   3000
actcccttct gccccaccct gccccctcca cttcctgccc tctgttccat cttcccccatt  3060
cccaaaggcc acagccttta ttccaggccc agggatgtag gaggggggaag gaggaaacag   3120
gaagcccaga gagggcaaag ggcctacctc ggggcgcgaa ccatgcccca gactattatc   3180
tcagggcttt ctgggcactg cacttcagcg tggcccacct gcccatgccc tgaggccagt   3240
tggcgagggg tggctcctga gggtttttat acctttgtt tgctaatgtt taattttgca    3300
tcataatttc tacattgtcc ctgagtgtca gaactataat ttattccatt tctctctgtg   3360
tctgtgccaa gaaacgcagg ctctgggcct gcccttgcc caggaggcct tgcagcctgt    3420
gtgcttgtgg gaacaccttg tacctgagct tacaggtacc aataaagagg ctttattttt   3480
agcaatgtgg tatgtatttg tggggtggga agcaggggca aaggggatgg gggacaagcc   3540
ctgcagaggg gagtatggac acaggctgtg ttgaggggta ggagtaggca cacccagcat   3600
attgggcctc tttccaggca agccagtcaa gttggaggca ggaagccagc tgagaggctg   3660
gccaggcaga tagagcagtt tttcctttgg agtaacctgt tcctctacag tggtgacctg   3720
gggtggtggg gaggagcagc accagggtct tctgacatgg ggctatctgc tggggatggg   3780
taagggcacc cttcttccta cacacccaca ctgagctgag gccttgtcct gagggtgaat   3840
tcaccaacct gggtggaggc agggtaaggg catgtgcctg gtcaaggcct ggtgatggcc   3900
ttacgtagca gctgtggtcc ctggggactt gagcaggggg gcagcggaaa gggcaggggg   3960
aagctgcaga acctcatccc tctgcaccag ccagacctgt ctgacctgtc cctggcagct   4020
cagctgggca gcaggccaga ggagtaggcc acacctgct ctggggagcc ccagtctggg    4080
ggcctgagaa aggttgactt cccccttagg aatgatagtg atttgtacaa gagctggaag   4140
gaggaaccgc c                                                        4151


<210> 9413
```

<211> 691
<212> DNA
<213> Homo sapiens

<400> 9413
```
tactccctct gtgcctgggt gtcctcaata ctacatgcaa acagtaacac tactcacctc        60
ataaacttgt ttatttcata tttacaaagc ccttaaagag tgcctggaac atgcaagtcc       120
tgtgtatgtt tgcaacttgc atcgattttc atgtttctgc cattctttct ctgaatgttt       180
aatccttttt ttgcctgtcc tgtcaccctt caggtatctg tctcttgcct ctggacatgc       240
atggtcatga ccacatggcc atatcagtgc cattagagga ctcatagttt ggagtctggc       300
ctatggtgcg gcagtatgtc cctgtaacca gcttaactag gaataggctt ctcaggttag       360
agtaccctgg tacattgagt tgtcctgtct cttcttcact ggtgcctaga cacccttctg       420
tagcgattac ttcagcaagc acaatccaaa acctgggttc ttcaagggtt cccagggtca       480
ctctgattgg cctggtggtc tgggtggcag ccctcagctc cagtactctg gcaggaagtc       540
ccaacaggct tccaccacat ggactcagcc catggctgga ctgaggcctg cctactccca       600
tctagggcca caggggttctt agtttttgtt tctctgtttt tagataaatg aagacaatct      660
aggttttaca gcaaaaacat gattaatgta c                                     691
```


<210> 9414
<211> 4151
<212> DNA
<213> Homo sapiens

<400> 9414
```
gggcagtctg gcatgatctt tttggaggta agttgtgcct cactgaaaac taatccccag        60
cccatctttg cctgctttct agccctgtct atcctgaagc gagctcgccg ggagcgccca       120
ggccgtgtag cctttgatgg gatcaccgtc ttctacttcc cccgctgcca gggcttcacc       180
agtgtgccca gccgtggtgg ctgtactctg ggtatggccc ttcgccacag tgcttgccgt       240
cgcttctctt tggctgagtt tgcgcaggag caagcccgtg cacggcacga gaagctccgc       300
cagcgcttga aagaggagaa gttggagatg ctgcagtgga aggtagagag agtcctctcc       360
gtggcgcacc tcctgaggca gctcctggag tcctaacctt gaggggtggg cgtaccaggg       420
gtgggtgctg acttgctcat tatggttatg gggaaacagc ctgtgggcct ggtgattggc       480
ttgattggag cctgttgcct gggttgtctg caacaggagg cgcagaggag ggctcgtgtc       540
tatttgctgc aggggctggg ggcatgatac ctgaatctga acttttggga gagggggatg       600
tgaagttgat atgaactgga gggggtgcgt atctgtctgg ttaggaaagg gagtctgtcc       660
atgatctagg gaatgccatg agtaggatat ctcttttttt tttttcaaa tgccctgagg       720
gcagttttct tggctgtcct gttcactgtc tgacacacag tgcccatcgc agattaagca       780
cgagtagtgg cggggtaagc acttggggag ggtttgtcta gtgacagtag ggctaagccc       840
atgtccatgt ctgtgcttct cacatccctc tttcctgtgg atgcagcttt cggcagctgg       900
ggtaccccag gcagaggcag ggctgccacc tgtggtggat gccattgatg acgcctctgt       960
ggaggaggac ttggcagtcg ctgtggcagg tggccggttg gaagaagtga gcttcctaca      1020
gccctaccca gcccggcgac gtcgagctct gctgagggct tcaggtgtgc gaaggatcga      1080
tcgggaggag aagcgggagc tgcaggcact gcgccaatcc cggggaggatt gtggctgtca      1140
ctgcgatagg atctgcgacc ctgagacctg cagctgcagc ctggcaggca tcaagtgcca      1200
ggtgtggtgg ctggactggg atggggatcc tgagcgtggg gacttctttg cactccacag      1260
aaccctcact tgtacctcta cttttctctg cagatggacc acacagcatt cccctgtggc      1320
tgctgcaggg agggctgtga gaaccccatg gccgtgtgg aatttaatca ggcaagagtt       1380
cagacccatt tcatccacac actcacccgc ctgcagttgg aacaggaggc tgagagcttt      1440
agggagctgg aggcccctgc ccagggcagc ccacccagcc ctggtgagga ggccctggtc      1500
cctactttcc cactggccaa gccccccatg aacaatgagc tgggagacaa cagctgcagc      1560
agcgacatga ctgattcttc cacagcatct tcatcagcat cgggcactag tgaggctcct      1620
gactgcccca cccacccagg cctgcctggc cctggcttcc agcctggcgt tgatgatgac      1680
agcctggcac gcatcttgag tttcagtgac tctgacttcg gtggggagga ggaggaagag      1740
gaggaaggga gtgtggggaa cctggacaac ctcagctgct tccatccagc tgacatcttt      1800
ggtactagtg accctggtgg cctggccagc tggacccaca gctattctgg ctgtagcttc      1860
acatcaggca tcctggatga gaatgccaac ctggatgcca gctgcttcct aaatggtggc      1920
cttgaagggt caagggaagg cagccttcct ggcacctcag tgccacccag catggacgct      1980
ggccggagta gctcagtgga tctcagcttg tcttcttgtg actcctttga gttactccag      2040
gctctgccag attatagtct ggggcctcac tacacatcac agaaggtgtc tgacagcctg      2100
gacaacatcg aggcacctca cttcccccctg cctggcctgt ctccacctgg ggatgccagc      2160
```

```
agttgcttcc tggagtccct.catgggcttc tccgagccag ccgccgaagc cctagatccc    2220
tttattgaca gccagtttga ggacactgtc ccagcatctc taatggagcc tgtgccggtg    2280
tgaggaccag gatgtctttt cccagcccca agagacctgt tgctgctttc ttgtaattat    2340
ggggctcccc agagtctgcg taacagtctc ccactggctg gctcacccac aggtgccatg    2400
tgcacactcc tggttttcaa acaattctct ggatttattt atttgtttta acttttctgt    2460
gctgaagaga ggactagggg gaggggcctt cccctttcag ctgcccggcc ccccacaccc    2520
acagcttgct cttctatctc cacaacgtga gcctggaaga ggagaaaatg tggctcctct    2580
ggagcttggc agaccacttt tcggtctttg cgtgatgttc cttagcccaa agacggtgag    2640
acagggctga aatcaggtgg cttctgccac cctgagccct agacccatgg gtggctaaat    2700
ccactggact gtgaagacta taatttattt ccataattta tttggagatt gaggaggctt    2760
tggttgcact tctttggctg gtgggtaatg ccaggggtgg ggtgggcaca ggcctcaaga    2820
gccccttttg ccttgtagtc ctacaccttg ccctgcctgg gctttggtgc agactaggtg    2880
tggatttgag ctctgtgatc tatgtctgct gcctggctcc tagatggctc tgcgggcagg    2940
tgctggccaa ggacatcatc taggcagggg gagagcctgg gctgaacagc tgtgaccaaa    3000
actcccttct gccccaccct gcccctcca cttcctgccc tctgttccat cttccccctt    3060
cccaaaggcc acagccttta ttccaggccc agggatgtag gaggggaag gaggaaacag    3120
gaagcccaga gagggcaaag ggcctacctc ggggcgcgaa ccatgcccca gactattatc    3180
tcagggcttt ctgggcactg cacttcagcg tggcccacct gcccatgccc tgaggccagt    3240
tggcgagggg tggctcctga gggtttttat acccttgtt tgctaatgtt taattttgca    3300
tcataatttc tacattgtcc ctgagtgtca gaactataat ttattccatt tctctctgtg    3360
tctgtgccaa gaaacgcagg ctctgggcct gccccttgcc caggaggcct tgcagcctgt    3420
gtgcttgtgg gaacaccttg tacctgagct tacaggtacc aataaagagg ctttattttt    3480
agcaatgtgg tatgtatttg tggggtggga agcaggggca aaggggatgg gggacaagcc    3540
ctgcagaggg gagtatggac acaggctgtg ttgaggggta ggagtaggca cacccagcat    3600
attgggcctc tttccaggca agccagtcaa gttggaggca ggaagccagc tgagaggctg    3660
gccaggcaga tagagcagtt tttccttttgg agtaacctgt tcctctacag tggtgacctg    3720
gggtggtggg gaggagcagc accagggtct tctgacatgg ggctatctgc tggggatggg    3780
taagggcacc cttcttccta cacacccaca ctgagctgag gccttgtcct gagggtgaat    3840
tcaccaacct gggtggaggc agggtaaggg catgtgcctg gtcaaggcct ggtgatggcc    3900
ttacgtagca gctgtggtcc ctggggactt gagcaggggg gcagcggaaa gggcagggggg    3960
aagctgcaga acctcatccc tctgcaccag ccagacctgt ctgacctgtc cctggcagct    4020
cagctgggca gcaggccaga ggagtaggcc acccctgct ctggggagcc ccagtctggg    4080
ggcctgagaa aggttgactt cccccttagg aatgatagtg atttgtacaa gagctggaag    4140
gaggaaccgc c                                                          4151


<210> 9415
<211> 691
<212> DNA
<213> Homo sapiens

<400> 9415
tactccctct gtgcctgggt gtcctcaata ctacatgcaa acagtaacac tactcacctc      60
ataaacttgt ttatttcata tttacaaagc ccttaaagag tgcctggaac atgcaagtcc     120
tgtgtatgtt tgcaacttgc atcgattttc atgtttctgc cattctttct ctgaatgttt     180
aatccttttt ttgcctgtcc tgtcaccctt caggtatctg tctcttgcct ctggacatgc     240
atggtcatga ccacatggcc atatcagtgc cattagagga ctcatagttt ggagtctggc     300
ctatggtgcg gcagtatgtc cctgtaacca gcttaactag gaataggctt ctcaggttag     360
agtaccctgg tacattgagt tgtcctgtct cttcttcact ggtgcctaga caccccttctg    420
tagcgattac ttcagcaagc acaatccaaa acctgggttc ttcaagggtt cccagggtca    480
ctctgattgg cctggtggtc tgggtggcag ccctcagctc cagtactctg gcaggaagtc    540
ccaacaggct tccaccacat ggactcagcc catggctgga ctgaggcctg cctactccca    600
tctagggcca cagggttctt agttttgtt tctctgtttt tagataaatg aagacaatct    660
aggttttaca gcaaaaacat gattaatgta c                                   691


<210> 9416
<211> 6135
<212> DNA
<213> Homo sapiens
```

<400> 9416
```
cagttgaaaa accccttagtc actttgacac atctgctctt tacactggta ttttcttggt      60
ttaagtgacg acatactgaa atgactgggt caaatcaaca aatcagatat tgcaaaacca     120
gtattttcc  aaaaattgac tgtatatata aagtcagcca gtgctgactt cgtattttta     180
gatagtaagt gcagaaatat aacttcctct tctttctgtc tctagttttt actgttgacc     240
tatccctatg ctcctcaact ggacgctagt ctcttgtagg aaataaatct ctttaagaaa     300
gatgaaagag gttggtatgt atgccaggca cttgctagcc ttatactccc tacgtcccta     360
attttgacct tcatataacc acagatttac acagttaaaa gctgggaata aggcagcata     420
gcagtccttt tttttttttt tttttttttt ttttgtggca gggtcttacc ctattgccca     480
tgctggagtg cagtagcatg atcatagctc actgtaacct caacctccca ggcttaagtg     540
atccttctac atcagcctct tttttaaaaa aattatttat ttatttttga gacaaagttt     600
tgctcttgtt gcctggggtg gagtacaatt gtgccatctc agctcaccac aacctctgcc     660
tcccaggttc aagtgattat cctgcctcag cctcccgagt acctgagatt acagatgcct     720
gccatcacac ccagctaatt tttgtatttt tagtagagat ggggtttcgc catgttggcc     780
agtctggtct tgaactcctg acctcaggcg atccacctgc ttcagcctcc caaagtattg     840
ggattacagg cgtgagccac tgtgcccagc ctcctcggcc tcttaagaac tggtgtgcac     900
caccataccc agctaattag aaaaaaaaat ttgtagagat aaggtctcac tatgttgccc     960
aggcttgttt caaactcctg gtctcaagca atcctcccac ttcaacctcc taaagtgctg    1020
agattacagg cgtaagccac tgccctcagc cctcaaagca gtattaaagc tagtctagac    1080
tatattatgg tacagaaaga acaagaagtt gattgagtca agcatttgat tgatttattg    1140
ctcgatttta tattggcaac cataagggtt gctgttaatt gttactagta tcaaagtttg    1200
gaaaattctg cccagttatt gttcaatctt tgaagactga ggaacaagcc atgttcctct    1260
taagcattta atgacgttct tgcaatttta ttattttctt tcctttaatc cttctccaaa    1320
tatacatttt ttgcctcttc ctttttagcc ttcatctact ccttgcagat tgctttgtgg    1380
caaggattgc ttgtttcaac taggctgtct ttcctttggc ctaagagtcc acaggcaaac    1440
ctgagctgtg cccacttgct aggcttgcta tagggacctg aatttgcaaa ggaaggggaa    1500
cagtagagaa taaataatgg gagacagtga gcctatggct atgtcttttc agatgccttc    1560
tgcctggttt gttttagatt gccattgcct cagtcccctc tgtgggatag gccaagactt    1620
gtgtgctgtc ttgacccatg tggcagctac ttaattccca ctgtgggtct cagctctcgt    1680
gtgctgggggc agccaagaag ggaggcagtt aagaagttag ggtgcttagc agtgttctaa    1740
gtttagcccg ctaaggaagc atttcagata gttctgttct ccttttttgt gtggaaaata    1800
aatagctgtc caagccaggc acggtgcctc acgcctgtaa tcccttgggg aagctgaggt    1860
aggcagatca cgaggtcagg agttcgagat cagcctggcc agcgtggtga aaccccgtcg    1920
ctactaaaaa gacagaaatt tggccgggca tggtggggcg tgcctgtaat cccagctact    1980
tgggaggctg aggcagaaga attgcttgaa cccgggaggt ggaggtcttt gggcttgtat    2040
gttgatggtg atatttgtag agcattaact aagttctagt cactgttcta aaaattttac    2100
atctatgcac tcatctaatc ctcataacat ttctggggtt taggctctat tattgtcttc    2160
atcctacaga tgtgggaatc ctagagtata aatccttgcc taaacagcaa gtacgttttc    2220
acaaacccaa ataatcttat taaaataatt gtttaaataa aagtatattt tattgttttt    2280
cttgtttttt aaaagaaagc ttgttggtac tactagatta tttttttgagg gcatagtatt    2340
ctcaatatcc tccttttata cagcaaaaat attttaaatg gatgagatgg aatggtagta    2400
ctagaaagaa aggtaaaaaa tttaatgaca aatctcaaca cctagaatta aattgctagc    2460
ttcactgggg tttcctaata ataaaaactt tttttttttt tttttaatct cacagcaaac    2520
tttgaaacaa aaatgggtgg agtacagatc tctgcagtta caggaacatc gtctgcttca    2580
tggtaaatgc aatttcctgt tcagaaacca cactaacatt acttctttca gtatttctgc    2640
ctcaaagttg gtttaagatt atcatcatta taagaaaaat ttgtctagtg ctggtcaagg    2700
aaatgggtct gtgtttctttt ggcatgagct ttggaatggc tgtatttgga ggaggggtaa    2760
ggcaagtcag atccactact gcgtatcatg acgcagatgc acatgcacac agatgcacat    2820
gctcgaaaac aggcacctgg gatttttaga aaatcattgg ggaagattgc ctaactttcc    2880
ttctacttca gtgaatgaat tacatttctg aaaacaatca cggctaaggg gctgtatagt    2940
ttttagaagc tattaaagct ggaatggttg cacacttatt gggtagagct cctgtctttt    3000
gtttaaattg cataagttgc atttatgcag agaaattctt tttcatggcc cccaagacaa    3060
agacataaat gcgtaagatg aatacaacag taaatgcata gctcttgcca ttgagtgcat    3120
ttttaaggga agggttgagt ttaaaatgtg ttaattcgct atttgttgta tgatagatgt    3180
aaccaaagga atgaactttt gtgtacaaat aattcactga aaccactacg tgggtgtgaa    3240
atatagctta tctcttcttt aaatagcacc aagcttaagt ctgtaaccta gaatatctgt    3300
taaaagtgat aatcaatttg tttaccaaaa aagataacaa tttaatcctt aactagtcac    3360
taatttatgg cttagagttc tggtatgaac ttctgttttt tttttttaa attgaagtgt    3420
ttgaaactta tgtacaagtt acttctcttt tttatgtctt catttaatat ttttaaaaaa    3480
ttcataatag ttcttttggg tagtgaagtt tgttagagag gcagaaatat ttaatacaaa    3540
aacttcttta tggccttgta aattcagcca cctccttgct ttctttagac atgagggctt    3600
```

```
tttagcctca tttccacttc tggagcatcc tgaatggccc agtgaatata aattcttgct   3660
gttctataga aacagccttg tatagacaac attgttaggt caggatcctc ataaagtcat   3720
tgttgtacat atttttttgag caattgaagg agttctgctt tttctagatg tatagtaaac   3780
atccagggca tgtgattcta taaggcaatt gctctccaat caaaagaaat tcatcactta   3840
ttgcaagatg aaatgaagta ggttgtatta gcaaaaagga aagcattatg actagtcacc   3900
atggggctgg ctgtactcaa ccttgcaaat catctgaaag aacagtttct tttatattg    3960
tcaaccgagg acaaaagaca gcagcagtgg agataatcag tacaaaataa aaccatttta   4020
gagtgtacag tattctatta ttttttctga agcatagtca cttactgatt acgtttttcc   4080
aaggctggta ttacaagttc tctctctctc tctctctctc tctcacacac acacacacac   4140
aagataccaa ccaactcagt tagtgtggaa gcaggaggg tcatattggt atgtgattaa    4200
cattagagtt tgaagagcca gatgtacgtt gttaaggatc aatgaaaaaa atttagccaa   4260
gcagataaaa ttcaatttct tcaaataaat tattacttac ttgaggacaa ggatgatttc   4320
tgggtacagt atcattccag agaatttaag tattccaaaa cgaaactggg aatattgagg   4380
ttggaagata catttgatct cacaaatcct ttctctaaga aacacttttg aattacctgt   4440
tccataactg ttttctattt acttcaaatg gttttataat aattttagaa ttatttttaa   4500
aagacagtac ctaagaatca gagaaactaa gtggagaaaa tcatgatagt atttccccaa   4560
gtgtattcta tggaacccca tttctgtgag aattttaata aaaggtttca gggttattta   4620
aatttaagaa atgatcattt tggaggttca gatgccacac tggtagactg tcaattgggc   4680
tgaactgttc tcatatgaaa catcttgttt aaatttattc taatattata attttgtga    4740
ccatggaacc ttggtctatg aacaatagtt caggaaaccc tactataagg tttatcaaat   4800
ggtctcataa acagttactt attcaagcac gccaaagctc agtgaaaagt attttcacc    4860
cttactcttt ctcgtgtcat tcaaagagaa gttttgatgt agtgtattta tttgtaggga   4920
gtaatgaaca gatccatttc acagtagact ttgtgctcta ggtgatgcag ctaattgccc   4980
cagtttggaa aacatggact tggatgaatt gtctttgttt ggacccctgc ctgggccagg   5040
cccagccctt gtggaccgga atcgattatc cagtgagagc agctgtaaga gctggctgag   5100
ctccatgacg atggacagtg aagatggcta ccagacgtgt gtgtctgagg actccagcag   5160
gggtgccttc agtcggcaga cgagtacaga tgatgagtgc tttatcccca aggaggggga   5220
tgattttctg aggaggtcat cttcaaggag gaaccggagc atcagtaaca ccagcagcgg   5280
atccatgtct cccttgtggg agggcaactt atcaagcatg tttggaccct gccccggaag   5340
agcagaaagg gaagtgtccg aaagcaactc ttgaaattta tccctggcct tcatcgtgct   5400
gtggaagagg aagaaagtcg cttttgacgg attgtggtgt cctttcaaat tagcttattt   5460
cacaaatatc tctagactca cccagatccc agcttggtgg gaaagtgcag aagaattgca   5520
aaactgacat cccatttcac agcaatagtg acctttattt aaattgttgt gttatagttt   5580
atgcttctta aatcattttt caacctaaac agccaatttc taagcagaca ggaaaactaa   5640
ataataagtt aattaatata acaaagatgc aggttcctgc tcattccagt aatgtctttg   5700
aaagcaaaac taatatttat tttctagatt atccctgtga ataattgaga acttttttgga   5760
gtcaagtatg aataaaggtg tggcagaata taataatctg gactattttc tataggataa   5820
ttgctgggtt ataaaatctt aggtttgctt atgcccagta gctcctgcgg aggcttaata   5880
ataggcaatt ttgaatttgt tcaaacctgt aatggcttgt aaacaaagat gaccatcagc   5940
tgtttctcac atctatagtg acaataaagc gggaagtata agatttaata ggaggggtta   6000
aggttcatga gaaccatgga aagatgtggt ctgagatggg tgctgcaaag atcataataa   6060
agtcattttt atagacagtc taaacaaaat gggtggggat gtcgtgtttt ttgcccaatt   6120
cagcttttgt tctgc                                                    6135


<210> 9417
<211> 6487
<212> DNA
<213> Homo sapiens

<400> 9417
cagttgaaaa acccttagtc actttgacac atctgctctt tacactggta ttttcttggt     60
ttaagtgacg acatactgaa atgactgggt caaatcaaca aatcagatat tgcaaaacca    120
gtattttcc aaaaattgac tgtatatata aagtcagcca gtgctgactt cgtattttta    180
gatagtaagt gcagaaatat aacttcctct tctttctgtc tctagttttt actgttgacc    240
tatccctatg ctcctcaact ggacgctagt ctcttgtagg aaataaatct ctttaagaaa    300
gatgaaagag gttggtatgt atgccaggca cttgctagcc ttatactccc tacgtcccta    360
attttgacct tcatataacc acagatttac acagttaaaa gctgggaata aggcagcata    420
gcagtccttt tttttttttt ttttttttttt ttgtggcagg gtcttaccct attgcccatg    480
ctggagtgca gtagcatgat catagctcac tgtaacctca acctcccagg cttaagtgat    540
ccttctacat cagcctcttt tttaaaaaaa ttatttattt atttttgaga caaagttttg    600
```

6987

```
ctcttgttgc ctggggtgga gtacaattgt gccatctcag ctcaccacaa cctctgcctc    660
ccaggttcaa gtgattatcc tgcctcagcc tcccgagtac ctgagattac agatgcctgc    720
catcacaccc agctaatttt tgtattttta gtagagatgg ggtttcgcca tgttggccag    780
tctggtcttg aactcctgac ctcaggcgat ccacctgctt cagcctccca aagtattggg    840
attacaggcg tgagccactg tgcccagcct cctcggcctc ttaagaactg gtgtgcacca    900
ccatacccag ctaattagaa aaaaaattt gtagagataa ggtctcacta tgttgcccag    960
gcttgtttca aactcctggt ctcaagcaat cctcccactt caacctccta aagtgctgag   1020
attacaggcg taagccactg ccctcagccc tcaaagcagt attaaagcta gtctagacta   1080
tattatggta cagaaagaac aagaagttga ttgagtcaag catttgattg atttattgct   1140
cgattttata ttggcaacca taagggttgc tgttaattgt tactagtatc aaagtttgga   1200
aaattctgcc cagttattgt tcaatctttg aagactgagg aacaagccat gttcctctta   1260
agcatttaat gacgttcttg caattttatt attttctttc ctttaatcct tctccaaata   1320
tacatttttt gcctcttcct ttttagcctt catctactcc ttgcagattg ctttgtggca   1380
aggattgctt gtttcaacta ggctgtcttt cctttggcct aagagtccac aggcaaacct   1440
gagctgtgcc cacttgctag gcttgctata gggacctgaa tttgcaaagg aaggggaaca   1500
gtagagaata aataatggga gacagtgagc ctatggctat gtcttttcag atgccttctg   1560
cctggtttgt tttagattgc cattgcctca gtcccctctg tgggataggc caagacttgt   1620
gtgctgtctt gacccatgtg gcagctactt aattcccact gtgggtctca gctctcgtgt   1680
gctggggcag ccaagaaggg aggcagttaa gaagttaggg tgcttagcag tgttctaagt   1740
ttagcccgct aaggaagcat ttcagatagt tctgttctcc ttttttgtgt ggaaaataaa   1800
tagctgtcca agccaggcac ggtgcctcac gcctgtaatc cctttgggaa gctgaggtag   1860
gcagatcacg aggtcaggag ttcgagatca gcctggccag cgtggtgaaa ccccgtcgct   1920
actaaaaaga cagaaatttg gccgggcatg gtggggcgtg cctgtaatcc cagctacttg   1980
ggaggctgag gcagaagaat tgcttgaacc cgggaggtgg aggtctttgg gcttgtatgt   2040
tgatggtgat atttgtagag cattaactaa gttctagtca ctgttctaaa aattttacat   2100
ctatgcactc atctaatcct cataacattt ctggggttta ggctctatta ttgtcttcat   2160
cctacagatg tgggaatcct agagtataaa tccttgccta aacagcaagt acgttttcac   2220
aaacccaaat aatcttatta aaataattgt ttaaataaaa gtatatttta ttgtttttct   2280
tgttttttaa aagaaagctt gttggtacta ctagattatt ttttgagggc atagtattct   2340
caatatcctc cttttataca gcaaaaatat tttaaatgga tgagatggaa tggtagtact   2400
agaaagaaag gtaaaaaatt taatgacaaa tctcaacacc tagaattaaa ttgctagctt   2460
cactggggtt tcctaataat aaaaactttt tttttttttt ttttaatctc acagcaaact   2520
ttgaaacaaa aatgggtgga gtacagatct ctgcagttac aggaacatcg tctgcttcat   2580
ggtaaatgca atttcctgtt cagaaaccac actaacatta cttctttcag tatttctgcc   2640
tcaaagttgg tttaagatta tcatcattat aagaaaaatt tgtctagtgc tggtcaagga   2700
aatgggtctg tgtttctttg gcatgagctt tggaatggct gtatttggag gaggggtaag   2760
gcaagtcaga tccactactg cgtatcatga cgcagatgca catgcacaca gatgcacatg   2820
ctcgaaaaca ggcacctgga gattttagaa aatcattggg gaagattgcc taactttcct   2880
tctacttcag tgaatgaatt acatttctga aaacaatcac ggctaagggg ctgtatagtt   2940
tttagaagct attaaagctg gaatggttgc acacttattg ggtagagctc ctgtcttttg   3000
tttaaattgc ataagttgca tttatgcaga gaaattcttt ttcatggccc ccaagacaaa   3060
gacataaatg cgtaagatga atacaacagt aaatgcatag ctcttgccat tgagtgcatt   3120
tttaagggaa gggttgagtt taaaatgtgt taattcgcta tttgttgtat gatagatgta   3180
accaaaggaa tgaacttttg tgtacaaata attcactgaa accactacgt gggtgtgaaa   3240
tatagcttat ctcttcttta aatagcacca agcttaagtc tgtaacctag aatatctgtt   3300
aaaagtgata atcaatttgt ttaccaaaaa agataacaat ttaatcctta actagtcact   3360
aatttatggc ttagagttct ggtatgaact tctgtttttt tttttttaaa ttgaagtgtt   3420
tgaaacttat gtacaagtta cttctctttt ttatgtcttc atttaatatt tttaaaaaat   3480
tcataatagt tcttttgggt agtgaagttt gttagagagg cagaaatatt taatacaaaa   3540
acttctttat ggccttgtaa attcagccac ctccttgctt tctttagaca tgagggcttt   3600
ttagcctcat ttccacttct ggagcatcct gaatggccca gtgaatataa attcttgctg   3660
ttctatagaa acagccttgt atagacaaca ttgttaggtc aggatcctca taaagtcatt   3720
gttgtacata ttttttgagc aattgaagga gttctgcttt ttctagatgt atagtaaaca   3780
tccagggcat gtgattctat aaggcaattg ctctccaatc aaaagaaatt catcacttat   3840
tgcaagatga aatgaagtag gttgtattag caaaaaggaa agcattatga ctagtcacca   3900
tggggctggc tgtactcaac cttgcaaatc atctgaaaga acagtttctt tttatattgt   3960
caaccgagga caaaagacag cagcagtgga gàtaatcagt acaaaataaa accattttag   4020
agtgtacagt attctattat tttttctgaa gcatagtcac ttactgatta cgttttccaa   4080
aggctggtat tacaagttct ctctctctct ctctctctct ctcacacaca cacacacaca   4140
agataccaac caactcagtt agtgtggaag caggagggt catattggta tgtgattaac   4200
attagagttt gaagagccag atgtacgttg ttaaggatca atgaaaaaaa tttagccaag   4260
```

6988

```
cagataaaat tcaatttctt caaataaatt attacttact tgaggacaag gatgatttct    4320
gggtacagta tcattccaga gaatttaagt attccaaaac gaaactggga atattgaggt    4380
tggaagatac atttgatttc acaaatcctt tctctaagaa acacttttga attacctgtt    4440
ccataactgt tttctattta cttcaaatgg ttttataata attttagaat tattttttaaa   4500
agacagtacc taagaatcag agaaactaag tggagaaaat catgatagta tttcccaag     4560
tgtattctat ggaaccccat ttctgtgaga attttaataa aaggtttcag ggttatttaa    4620
atttaagaaa tgatcatttt ggaggttcag atgccacact ggtagactgt caattgggct    4680
gaactgttct catatgaaac atcttgttta aatttattct aatattataa tttttgtgac    4740
catggaacct tggtctatga acaatagttc aggaaaccct actataaggt ttatcaaatg    4800
gtctcataaa cagttactta ttcaagcacg ccaaagctca gtgaaaagta tttttcaccc    4860
ttactctttc tcgtgtcatt caaagagaag ttttgatgta gtgtatttat ttgtagggag    4920
taatgaacag atccatttca cagtagactt tgtgctctag gtgatgcagc taattgcccc    4980
agtttggaaa acatggactt ggatgaattg tctttgtttg dacccctgcc tgggccaggc    5040
ccagcccttg tggaccggaa tcgattatcc agtgagagca gctgtaagag ctggctgagc    5100
tccatgacga tggacagtga agatggctac cagacgtgtg tgtctgagga ctccagcagg    5160
ggtgccttca gtcggcagac gagtacagat gatgagtgct ttatccccaa ggaggggat    5220
gattttctga ggaggtcatc ttcaaggagg aaccggagca tcagtaacac cagcagcgga    5280
tccatgtctc ccttgtggga gggcaactta tcaagcatgt ttgggaccct gccccggaag    5340
agcagaaagg gaagtgtccg aaagcaactc ttgaaattta tccctggcct tcatcgtgct    5400
gtggaagagg aagaaagtcg cttttgacgg attgtggtgt cctttcaaat tagcttattt    5460
cacaaatatc tctagactca cccagatccc agcttggtgg gaaagtgcag aagaattgca    5520
aaactgacat cccatttcac agcaatagtg acctttattt aaattgttgt gttatagttt    5580
atgcttctta aatcattttt caacctaaac agccaatttc taagcagaca ggaaaactaa    5640
ataataagtt aattaatata acaaagatgc aggttcctgc tcattccagt aatgtctttg    5700
aaagcaaaac taatatttat tttctagatt atccctgtga ataattgaga acttttttgga   5760
gtcaagtatg aataaaggtg tggcagaata taataatctg gactattttc tataggataa    5820
ttgctgggtt ataaaatctt aggtttgctt atgcccagta gctcctgcgg aggcttaata    5880
ataggcaatt ttgaatttgt tcaaacctgt aatggcttgt aaacaaagat gaccatcagc    5940
tgtttctcac atctatagtg acaataaagc gggaagtata agatttaata ggaggggtta    6000
aggttcatga gaaccatgga aagatgtggt ctgagatggg tgctgcaaag atcataataa    6060
agtcattttt atagacagtc taaacaaaat gggtgggat gtcatgtttt ttgcccaatt     6120
cagcttttgt tctgcctgaa cattaatggc aagtctagaa ctctccgaat cctacagctt    6180
tgtaattttt tttctacaaa tgtctaacat ccaaaactga gggttgggaa aaggacttcc    6240
ctcctgtagt ttttttcata ttacttctca ctttatatct tatattctaa atagctatca    6300
cctcagcagt cttttgccta ttggttatgt tagtatcaca ttacttctag cctttcaatt    6360
actccatgtt ttatttaata tccattgaag tctatgaatt ctctgttctg gtggcacagc    6420
tattcataac ctatattcta gagtagacaa tctggactat gtaataaata gtctgctgat    6480
tttaagt                                                              6487
```

<210> 9418
<211> 139
<212> DNA
<213> Homo sapiens

<400> 9418
```
tttttttttt tttgagacag agtttcgccc ttgtcaccca ggctggagtg cagtggcatg      60
atctcggctc actgcaacct ccacctcccg ggttcaaggg attctcctgc ctcagcctcc     120
tgagtagctg ggattacag                                                  139
```

<210> 9419
<211> 139
<212> DNA
<213> Homo sapiens

<400> 9419
```
tttttttttt tttgagacag agtttcgccc ttgtcaccca ggctggagtg cagtggcatg      60
atctcggctc actgcaacct ccacctcccg ggttcaaggg attctcctgc ctcagcctcc     120
tgagtagctg ggattacag                                                  139
```

```
<210> 9420
<211> 2399
<212> DNA
<213> Homo sapiens

<400> 9420
ccctgctgag aatggatttg tttgtgttct ataccttggt gtcatgaagt ccgataatta      60
atgtaaaatt ctcaatttcc cgcctagccc aaaataagta ctcagcaatg ttggttgact     120
gtgtcctatt taataatatt tttatggcac catgctccat taaactcaga acaatttgta     180
gaagtcttct aatttatctt cgactataga ttccagaact cttttgactta catttgacta     240
agtaaaaaga tgtctttctg cctctagaag acagtttttc ctagaaacat tgattctgat     300
gcctaatttt ctttacccat taattcatgg acttatttt attgtttttc acacatcctc      360
acaatctttg ccaggaacat ggtgagcagg aatacttacc tttcagggca gggagaaagg     420
tcagagcctc aggtggcctc tgagtgacct cagtgctaga gctgtccacc tgtttatact     480
cctggctatc acacctttat cccatcacag aagcttacaa aaggagtaat tattagagtt     540
tgctttgtaa agcctaattt tggatttcca tttaataatt aaagctggtt ttagggaagc     600
ccctaaacca acctgagttt tcttgaaata ctaacttgtg tcttgctgtt atctgagtca     660
cactttatc ctaattttta gatacggacg gcctgaccct ctgctccgga gagaacacga      720
cattcgcgtg agcctccgga tggcctctgt gcagtatgtg catactcagc gtttccaggc     780
agaggtggtg gccttcattc agcatttcac tcagctgcag gatgtcttag ggcgccagcg     840
agctgctatt gaggggcaga cggtaggtag cctgggccct ccaagctgct tttccagttt     900
gactgatcag tagaactttt aggcctctag agatgaatct ggaagagtaa aggtaagtta     960
tccttgctaa tatgttctcc gtgtagatta gctacagaca tctttgtgta attgaagagc    1020
tttgttcctt atttattgta tctcacttaa attaccttca aactttagct ttcactttct    1080
gtaaaaaag ataagggagg tttacaaaga cacttaaga cttctggtcc cttttaggac      1140
ttcagtgggg atgtttctct tggaaagtgg taggtttttt ctaaatgcag tagatcagaa    1200
gttctaaact gagttcgtgg cccccgtggg gtcctggtag tttattcatg gcacatccta    1260
ggccaaagga aacacctaat ggtatttccg tttacaaagt aagtcagtct aaacaacaag    1320
tacatatgtc ctaacaactt agtaggtgtt tgaaaaaata ataacacata aatggaaaga    1380
ataatatttt atttaattct taagtaacca caatgactgg taggaggtat gtgcctgtta    1440
ggtattgcat aacttctcaa acttggaatc aggttggaca ttacaaccct cacttcctgt    1500
ccacatttat cttcttatgg tacttgcttt ttctcacagc aaccgctgaa gacccagctt    1560
cgcaaagata ataccttact gaaaggagta tagaatgatc tattattgaa tgccaactac    1620
cacaagctac tagttagtgc agtgtctggc agatgttgtt tttccttcaa aaatttaaaa    1680
tgtcctggca gccgggtgtg gtggctcacg cctgtaaatc ctagcacttt gggaggccga    1740
ggcgggcaga tcacgaggtc cagagatcga gaccatcctg gccaacatga cgaaaccccg    1800
tctttactaa aatacaaaaa ttagctgggc atggtggcac gtgcctgtag tcccagctat    1860
tcgggaggct aaggcaggag aatcgcttga acctgggagg cggaggttgg agtgagccga    1920
ggtggcgcca ctgcactcca gtctggcgac agagcgagac tccgtctcaa aaaaaaaagt    1980
cctgacagct gcaagccttt gccaccctgt ggtgtctcag tgcagtttgg gaaccataga    2040
aaataacaat gtacttttgt aacaacgtgt tattttttcct tttttaaaaa aactttatgg    2100
ccaggcgtgg tggctcacac ctgtaatccc agcactttgg ggggcgaggc gggcaaatca    2160
cttgagctca ggaattcgtg accagcctgg gcaacatggt ggaattctgt ctctacaaga    2220
aatacagaaa ttagccgggt gtggtgaggc atgtgtctgt agtcccaggt acttgggagg    2280
ctgaggtggg aggatggctt gagcccagga ggtggaggtt gcagtgagct gagatcatgc    2340
cacctgcact tcagccttgg tgacagagcc accatgactc aaaaaaaaaa aaaaaaaac    2399


<210> 9421
<211> 7134
<212> DNA
<213> Homo sapiens

<400> 9421
gaacaagctg ttactaatgt actggagttt ctgtgcaaac tgtctaccat aaaccatgaa      60
aggattcaaa gttcatagtt ccttctttgt tcctttgtta atcactgact tctgactagt     120
gggaggtgcc tcccaagttt gctaatgcat tcttttttgga taaggatgac gcacagattg     180
tcctaataag gacttagatt gagaaagacc gccccctctg agaagagggg acaagtcaga     240
gagagggcgg gcagtttctt tttaactag ggatgacaca agcataagtc atttccttat      300
taattggttc aaaccagttc ttacaggaac tagtggtgat aaatgtggga cttctgagaa     360
```

6990

```
gtcattcatt ttattctttg tgccatacca gagtacagta tcagctgagc tgaccttact  420
ctgaggacta actcttttgc tggaagcggt ttctgattta cagctcttgg tttctcccag  480
acatgttggt gggagagatt ttggtttta aggggttgtt agatggagta aattttcttt  540
ttttttttt ttttttttaa ctaaaaaggg gtcacagaat ttcagcagtt ctctgatttt  600
tatattttat tcctcttcct atccaatccc tgcctttga gtccaggtgg taagtacatt  660
ttctttaacg ttttccctgc ttttcttccc aaatgtgtct ttttctttgg gctactgtac  720
cctgcttcca gtgctgtccc cggcataggt ccatctctgc agaagccatt tcaggagtac  780
ctggaggctc aacggcagaa gcttcaccac aaaagcgaaa tggcacacc acaggtaaga  840
ctttaatccg gtttcttctc ccctctggga agtttcgggc tgaaattaca ttcacagctc  900
tcactcacat ttttaggcaa ataagtgaag ttggtttgcc agtgttcctt gacagaagtt  960
gagcgtctgt gtatgctcta ctgggaaatt tgtctttgtc ttagactaga aagtgtaact 1020
tctgtacatc ttctcctaaa aacaagggta gagccaatgg aaagtaatgg ttctgttaca 1080
tagaatgagt tgttgccttg atcttaaatg atgtattggt agatatactt cccaagtgga 1140
ttaaaaagtt aaaacttaca gcataacaaa gtattagact tactgaggtg acttgaatat 1200
ctccttttga ttttcactct attttctttt tcacccatgg gaaaatgata attttttaat 1260
aaaccaaggc tcttaccata gctgaacttt aaaacttaga ctgtcttttc tgtaaacgat 1320
tctgaggcaa agggaaatga ctagaagagg atgagtaaac aataacctga aatgggaaac 1380
tcgagggaag cacaggtttt ttttgttttg ttttgtttgg ttcgtttttt gttctttggg 1440
gttttttga dacagaattt cgctctcgtt gcccaagttg gagtgcaatg cgcgatctt 1500
ggctcactgc aacctccgcc tcccgggttc aagcgattct cctgcctcag cctcccaagt 1560
agctgtgatt ccaggcacgt gccaccacac cagctaattt tttgtatttt aatagaaaca 1620
gggtttcacc gtgttagcca ggctggtctc aaactgacct cagatgatcc gcccgccttg 1680
gcctcccaaa gtgctgggat tacagatgtg agccaccgcg cccggccaga gcactgtttt 1740
ttttaatggc cttgcactct tcttatggac ctttgctgcc ctcagttgac caaacatgac 1800
atcagaaaca gatacatttg tgtgtttaa aaacagctcc taatactgga acaaaaatat 1860
ttaactgtct tgacaatact catgagtatc tgcatggcga cttcagagtt gagtttaatc 1920
aaagagttta ttcttaggtc ctagtagaag agctaacctc acactcatcc cattctaaac 1980
tatgtgattc aacactgatt ttacatccaa caaagtgaaa tcttgatagt tgggtgtaaa 2040
aaggagagta atggagattt cagagtagtt ggggttgctt acttttcatt tttaattctt 2100
taggttttgt aagttacaca cttcaagcat tatagatgat cctctttta ctactgaact 2160
aatgaagcct ttttcattgc attgttctgc atttatttct acagggagaa aactggttgt 2220
cctggatgtt tgaaaagttg gtcgttgtca tggtgtgtta cttcatccta tctatcatta 2280
actccatggc acaaagttat gccaaacgaa tccagcagcg gttgaactca gaggagaaaa 2340
ctaaataagt agagaaagtt ttaaactgca gaaattggag tggatgggtt ctgccttaaa 2400
ttgggaggac tccaagccgg gaaggaaaat tcccttttcc aacctgtatc aattttttaca 2460
acttttttcc tgaaagcagt ttagtccata ctttgcactg acatacttt tccttctgtg 2520
ctaaggtaag gtatccaccc tcgatgcaat ccaccttgtg ttttcttagg gtggaatgtg 2580
atgttcagca gcaaacttgc aacagactgg ccttctgttt gttactttca aaaggcccac 2640
atgatacaat tagagaattc ccaccgcaca aaaaaagttc ctaagtatgt taaatatgtc 2700
aagcttttta ggcttgtcac aaatgattgc tttgttttcc taagtcatca aaatgtatat 2760
aaattatcta gattggataa cagtcttgca tgtttatcat gttacaattt aatattccat 2820
cctgcccaac ccttcctctc ccatcctcaa aaaagggcca ttttatgatg cattgcacac 2880
cctctgggga aattgatctt taaattttga gacagtataa ggaaaatctg gttggtgtct 2940
tacaagtgag ctgacaccat ttttttattct gtgtatttag aatgaagtct tgaaaaaaac 3000
tttataaaga catctttaat cattccaaaa ttgtgtccgt tttcttgagc gttttgattt 3060
tttactttta gcttatacca gctgaatggc agccttgcct aatccaccta caacaagaat 3120
ttcttaagct ttctttttatt tgcatgagag agccactacc aaggcatgtt ttgttatgct 3180
gaaactgggc tgctgcatac tgctaaatgg cacctctggg attggcctac ctggggattt 3240
cttggtttgt gaaaacagga gaggagaaat atctcataca agtgaaagga tactggagag 3300
agaaattacc catttctaaa aaaaaaccac actctgtcgt atctgtgtta atgttttcta 3360
gcatgtactc tggtttcaac agacacaaat ttatatgtta acccagtttt cttgccgttc 3420
tgtaagtgtt ttattcttag tgtgattttt ttccattggg atgttttga ttgaacttgt 3480
tcattttgtt ttgcttggga ggaaaataaa caattttact ttttttcctt aggagcatta 3540
tgagcattat gtcagaatag aatagaattg gggttcgatc ttaacaggcc agaaatgcct 3600
gggtttttt ggtttgtttt tgttttgtt ttttatcaa atcctgcctg actgtctgct 3660
tgtttgcct accatcgtga catctccatg gctgtaccac cttgtcgggt agcttatcag 3720
actgatgttg actgttgaat ctcatggcaa caccagtcga tgggctgtct gacattttgg 3780
tatctttcat ctgaccatcc atatccaatg ttctcattta aacattaccc agcatcattg 3840
tttataatca gaaactctgg tccttctgtc tggtggcact tagagtcttt tgtgccataa 3900
tgcagcagta tggagggagg attttatgga gaaatgggga tagtcttcat gaccacaaat 3960
aaataaagga aaactaagct gcattgtggg ttttgaaaag gttattatac ttcttaacaa 4020
```

6991

```
ttcttttttt  cagggacttt  tctagctgta  tgactgttac  ttgaccttct  ttgaaaagca  4080
ttcccaaaat  gctctatttt  agatagatta  acattaacca  acataatttt  ttttagatcg  4140
agtcagcata  aatttctaag  tcagcctcta  gtcgtggttc  atctctttca  cctgcatttt  4200
atttggtgtt  tgtctgaaga  aaggaaagag  gaaagcaaat  acgaattgta  ctatttgtac  4260
caaatctttg  ggattcattg  gcaaataatt  tcagtgtggt  gtattattaa  atagaaaaaa  4320
aaaatttttgt ttcctaggtt  gaaggtctaa  ttgatacgtt  tgacttatga  tgaccattta  4380
tgcactttca  aatgaatttg  ctttcaaaat  aaatgaagag  cagctgtcct  tctttcctct  4440
tttaagtgtt  cagctgtggc  atgctcagag  gttcctgctg  gattccagct  ggagcggtgt  4500
gatacccttc  tttttcagct  gttcgtgcct  tcctttcttg  tatccaccaa  agtggagaca  4560
aatacatgat  ctcaaagata  cacagtacct  acttaattcc  agctgatggg  agaccaaaga  4620
atttgcaagt  ggatggtttg  gtatcactgt  aaataaaaag  agggcctggg  aattcttgcg  4680
attccatctc  tactttgtat  aagtctcatt  ttgtgcctta  cacatctgca  gtatttatca  4740
tgttccaact  tggtgactgt  caggcagtgc  aatacatcag  cagtttatca  ccgaagagct  4800
gaggaatacc  tcccttaaaa  cagacaatgt  cggccgggcg  cggtggctca  cacctgtaat  4860
cccagcactt  tgggaggcca  aggcgggcag  atcacctgag  gtcaggagtt  tgagaccagc  4920
ctggccaaca  tggcgaaacc  ccatctctac  taaaaatata  aaaaattagc  cgggcgtggt  4980
ggtgcacgcc  tgtaatccca  gctattcagg  aggctgaggc  aggagaatcc  cttgaacgca  5040
ggaagcagag  tttgcagtga  gccgagatgg  cgccactgca  ctccagcctg  ggtgacagag  5100
caagacaaaa  aaaataacag  atgatgtcat  atgaaaatgt  gcaatgtcca  gttttcccat  5160
agttttctgt  attctctgtg  tgcataatct  ggagtatgag  tctgggaaga  aaaaggtttt  5220
tagtttcatt  tggatagtgg  ccacctctcc  attccctacg  aatgctagaa  tgaagttact  5280
tttttttttt  tttttttttt  ttttgagaca  gagtcttgct  ccgtcgccca  ggctagagtg  5340
caatggtaca  atctcggctc  actgccactt  ccgcctccca  ggttcaagcg  attgtcctgc  5400
ctcagcctct  ggagtagttg  ggattccagg  cgcccaccac  cacaccaggc  tagttttttgt  5460
atttttagta  gagacggggt  ttggccatgt  tggtcaggct  ggtctcgaac  tcctgacctg  5520
aggtgatcca  cctgcctcgg  tctcccaaag  ttctgggttc  acagacgtga  gccaccatgc  5580
ccacgtagaa  tgaagtttct  taaatacact  agttaattat  tgaaacatat  gcagtattga  5640
gtgctcctac  acaaacacgc  tcagcctctg  cccccagtgt  gctctgtgct  atccacagcc  5700
ttagtagaac  atgaggcttt  ttgtcatttc  accagtcatt  caataatgac  tcatttgagt  5760
atggatcatg  cactagctaa  ataaccagtt  gcgctcatgt  accctgaagc  aaattgttta  5820
gcctgaccca  tgtgtaagaa  gatcacagag  attcccaacc  tttcagtgtc  aaaaagcctt  5880
tccatatata  ttactttaaa  acccattttc  ccccatgtgt  aatagtctat  gttaatgacg  5940
gttcgggttt  cttctacatt  gtttgtgacc  tgagaaagtt  taaaagagcc  tcagtttctt  6000
tcatctataa  aaataaaaga  gatagaagga  cagtttacct  aaggaataaa  tctggtaaca  6060
tgtaaagtac  tgaaataggc  tgggtgcagt  ggctcatgct  tataatccta  atactttggg  6120
aggccaaggc  aggaggatcc  cttttaggcc  aagagttcaa  taaatagggc  cgggcatggt  6180
ggctcacgcc  tgtaatccca  gcactttggg  aggccaaggt  gggcagatca  cctgagttcg  6240
agaccagcct  aaccaacatg  gcgaaatcac  atctctacta  aaaatacaaa  aatgtagcag  6300
gcacggtggc  acatgcctgt  aatcccagct  actcgggagg  ctgaggcagg  aatcgcttga  6360
acccaggagg  cagaggttgc  agtgagccga  gatcttgcca  ttgcactcca  gcctgggcaa  6420
caagagtgaa  actccgtctc  aaaacaaaca  aacaaaaaag  agttcagtaa  aagtacagca  6480
ataaaagtta  tccacctcca  ccaccccagc  tttttttttt  tttttttttt  ttttttgaga  6540
gtgaggtttt  actgtgtcac  ccaggctgga  gtgtggtggc  acagtcatgg  ctctttacag  6600
ccttgacctc  ccaggctcaa  gaaattctcc  tacctcagcc  tccctggcaa  ggaccagcat  6660
gaaccaccat  acctgggtaa  tttttttaatt  ttttgtaaag  acagggtctc  aatattttgc  6720
ccaggccagt  cttgaattcc  caggctcgag  cgatcctgcc  gtggcctccc  aaagtgctgg  6780
gatgacaggt  gtgagccacc  atgctgggca  ttcccaatga  aagactgagg  ccaggcacag  6840
tggctcacgc  ctgtcatccc  agccttttgg  gaggccaaga  caggatcact  tgaggtcagg  6900
agttcaagac  cagcctggcc  agcatggtga  aaccctatct  ctactaaaaa  tacaaaaatt  6960
agccaggcgt  ggtggcgtat  gcctgtaatc  tcagctactc  gggaaacagg  caggagagtc  7020
acttgaaccc  ggaaggcaga  cgttgcagtg  acctgagatc  gtgccactgc  actccagcct  7080
gggcaacaga  gcaagacacc  atctcgcaaa  aaaaaaaaaa  aaaaaaaaaa  aaaa         7134
```

<210> 9422
<211> 4284
<212> DNA
<213> Homo sapiens

<400> 9422
ccttactttg aggactaact cttttgctgg aagcggtttc tgatttacag ctcttggttt   60

6992

```
ctcccagaca  tgttggtggg  agagattttg  gttttttaagg  ggttgttaga  tggagtaaat  120
tttcttttttt  ttttttttttt  ttttaacta  aaaaggggtc  acagaatttc  agcagttctc  180
tgatttttat  attttattcc  tcttcctatc  caatccctgc  cttttgagtc  caggtggtaa  240
gtacattttc  tttaacgttt  ttcctgcttt  tcttcccaaa  tgtgtctttt  tctttgggct  300
actgtaccct  gcttccagtg  ctgtccccgg  cataggtcca  tctctgcaga  agccatttca  360
ggagtacctg  gaggctcaac  ggcagaagct  tcaccacaaa  agcgaaatgg  gcacaccaca  420
ggtaagactt  taatccggtt  tcttctcccc  tctgggaagt  ttcgggctga  aattacattc  480
acagctctca  ctcacatttt  taggcaaata  agtgaagttg  gtttgccagt  gttccttgac  540
agaagttgag  cgtctgtgta  tgctctactg  ggaaatttgt  ctttgtctta  gactagaaag  600
tgtaacttct  gtacatcttc  tcctaaaaac  aagggtagag  ccaatggaaa  gtaatggttc  660
tgttacatag  aatgagttgt  tgccttgatc  ttaaatgatg  tattggtaga  tatacttccc  720
aagtggatta  aaaagttaaa  acttacagca  taacaaagta  ttagacttac  tgaggtgact  780
tgaatatctc  cttttgattt  tcactctatt  tttcttttca  cccatgggaa  aatgataatt  840
ttttaataaa  ccaaggctct  taccatagct  gaactttaaa  acttagactg  tcttttctgt  900
aaacgattct  gaggcaaagg  gaaatgacta  gaagaggatg  agtaaacaat  aacctgaaat  960
gggaaactcg  agggaagcac  aggttttttt  tgttttgttt  tgtttggttc  gttttttgtt  1020
ctttggggtt  tttttgagac  agaatttcgc  tctcgttgcc  caagttggag  tgcaatggcg  1080
cgatcttggc  tcactgcaac  ctccgcctcc  cgggttcaag  cgattctcct  gcctcagcct  1140
cccaagtagc  tgtgattcca  ggcacgtgcc  accacaccag  ctaatttttt  gtattttaat  1200
agaaacaggg  tttcaccgtg  ttagccaggc  tggtctcaaa  ctgacctcag  atgatccgcc  1260
cgccttggcc  tcccaaagtg  ctgggattac  agatgtgagc  caccgcgccc  ggccagagca  1320
ctgttttttt  taatggcctt  gcactcttct  tatggacctt  tgctgccctc  agttgaccaa  1380
acatgacatc  agaaacagat  acatttgtgt  gttttaaaaa  cagctcctaa  tactggaaca  1440
aaaatattta  actgtcttga  caatactcat  gagtatctgc  atggcgactt  cagagttgag  1500
tttaatcaaa  gagtttattc  ttaggtccta  gtagaagagc  taacctcaca  ctcatcccat  1560
tctaaactat  gtgattcaac  actgatttta  catccaacaa  agtgaaatct  tgatagttgg  1620
gtgtaaaaag  gagagtaatg  gagatttcag  agtagttggg  gttgcttact  tttcattttt  1680
aattctttag  gttttgtaag  ttacacactt  caagcattat  agatgatcct  cttttttacta  1740
ctgaactaat  gaagcctttt  tcattgcatt  gttctgcatt  tatttctaca  gggagaaaac  1800
tggttgtcct  ggatgtttga  aaagttggtc  gttgtcatgg  tgtgttactt  catcctatct  1860
atcattaact  ccatggcaca  aagttatgcc  aaacgaatcc  agcagcggtt  gaactcagag  1920
gagaaaacta  aataagtaga  gaaagtttta  aactgcagaa  attggagtgg  atgggttctg  1980
ccttaaattg  ggaggactcc  aagccgggaa  ggaaaattcc  cttttccaac  ctgtatcaat  2040
ttttacaact  ttttttcctga  aagcagttta  gtccatactt  tgcactgaca  tactttttcc  2100
ttctgtgcta  aggtaaggta  tccaccctcg  atgcaatcca  ccttgtgttt  tcttagggtg  2160
gaatgtgatg  ttcagcagca  aacttgcaac  agactggcct  tctgtttgtt  actttcaaaa  2220
ggcccacatg  atacaattag  agaattccca  ccgcacaaaa  aaagttccta  agtatgttaa  2280
atatgtcaag  cttttttaggc  ttgtcacaaa  tgattgcttt  gttttcctaa  gtcatcaaaa  2340
tgtatataaa  ttatctagat  tggataacag  tcttgcatgt  ttatcatgtt  acaatttaat  2400
attccatcct  gcccaaccct  tcctctccca  tcctcaaaaa  agggccattt  tatgatgcat  2460
tgcacaccct  ctggggaaat  tgatctttaa  attttgagac  agtataagga  aaatctggtt  2520
ggtgtcttac  aagtgagctg  acaccatttt  ttattctgtg  tatttagaat  gaagtcttga  2580
aaaaaacttt  ataaagacat  ctttaatcat  tccaaaattg  tgtccgtttt  cttgagcgtt  2640
ttgatttttt  acttttagct  tataccagct  gaatggcagc  cttgcctaat  ccacctacaa  2700
caagaatttc  ttaagctttc  ttttatttgc  atgagagagc  cactaccaag  gcatgttttg  2760
ttatgctgaa  actgggctgc  tgcatactgc  taaatggcac  ctctgggatt  ggcctacctg  2820
gggatttctt  ggtttgtgaa  aacaggagag  gagaaatatc  tcatacaagt  gaaaggatac  2880
tggagagaga  aattacccat  ttctaaaaaa  aaaccacact  ctgtcgtatc  tgtgttaatg  2940
ttttctagca  tgtactctgg  tttcaacaga  cacaaattta  tatgttaacc  cagttttctt  3000
gccgttctgt  aagtgtttta  ttcttagtgt  gattttttc  cattgggatg  ttttttgattg  3060
aacttgttca  ttttgttttg  cttgggagga  aaataaacaa  ttttacttt  ttcctttagg  3120
agcattatga  gcattatgtc  agaatagaat  agaattgggg  ttcgatctta  acaggccaga  3180
aatgcctggg  tttttttggt  ttgttttttgt  ttttgttttt  ttatcaaatc  ctgcctgact  3240
gtctgcttgt  tttgcctacc  atcgtgacat  ctccatggct  gtaccacctt  gtcgggtagc  3300
ttatcagact  gatgttgact  gttgaatctc  atggcaacac  cagtcgatgg  gctgtctgac  3360
attttggtat  ctttcatctg  accatccata  tccaatgttc  tcatttaaac  attacccagc  3420
atcattgttt  ataatcagaa  actctggtcc  ttctgtctgg  tggcacttag  agtcttttgt  3480
gccataatgc  agcagtatgg  agggaggatt  ttatggagaa  atggggatag  tcttcatgac  3540
cacaaataaa  taaaggaaaa  ctaagctgca  ctgtgggttt  tgaaaggtt  attatacttc  3600
ttaacaattc  ttttttttcag  ggacttttct  agctgtatga  ctgttacttg  accttctttg  3660
aaaagcattc  ccaaaatgct  ctattttaga  tagtttaaca  ttaaccaaca  taatttttttt  3720
```

6993

```
tagatcgagt cagcataaat ttctaagtca gcctctagtc gtggttcatc tctttcacct      3780
gcattttatt tggtgtttgt ctgaagaaag gaaagaggaa agcaaatacg aattgtacta      3840
tttgtaccaa atctttggga ttcattggca aataatttca gtgtggtgta ttattaaata      3900
gaaaaaaaaa attttgtttc ctaggttgaa ggtctaattg atacgtttga cttatgatga      3960
ccatttatgc actttcaaat gaatttgctt tcaaaataaa tgaagagcag ctgtccttct      4020
ttcctctttt aagtgttcag ctgtggcatg ctcagaggtt cctgctggat tccagctgga      4080
gcggtgtgat acccttcttt ttcagctgtt cgtgccttcc tttcttgtat ccaccaaagt      4140
ggagacaaat acatgatctc aaagatacac agtacctact taattccagc tgatgggaga      4200
ccaaagaatt tgcaagtgga tggtttggta tcactgtaaa taaaaagagg gcctgggaat      4260
tcttgcgatt ccatctctac tttg                                            4284


<210> 9423
<211> 392
<212> DNA
<213> Homo sapiens

<400> 9423
ccaaatgact cagaggacct agagggaggg cttgaacaca ctccagcact gtttctacaa       60
tttagccttt atttgcattg gaaaccacat tcctgaattc ttgaggggc aggctctggc       120
ttattctggg caactgactt caagtgggac ccctgagcta cctatgtaag caaagagtca       180
gccatctctg gagagttacc agggaggagg atctttctgt gaacttgctt tgatgacctc       240
cacccaaagc cctttgagga acagttttgt ttattcaagg agcccttggc aggtcactcc       300
tcccctacca caaatctaat ccaaatgcga cattttcctt tgaggccatc tatccctttt       360
gggggacaaa acacatcagc ttttcccttc ag                                    392


<210> 9424
<211> 300
<212> DNA
<213> Homo sapiens

<400> 9424
gcattaggca gtgttgcaag tacatatcgg aatctctttg gctggctcta agaaagagtt       60
tgaacttatt tacctcctta gccctatgta acaggtaaga aactaaaagg tacagaaaat      120
agagatgttt gatttttcta agttgcccca agctaccgtt tttaaaaacg cctgcaagca      180
tgtctaaaac aggagcctgt tagctacagt tgccaaaccg gtttaacagc actgcctcca      240
tgtattctgg gtaagaagga gctccgagta cataaattta tcaaagatca ctatcccaat      300


<210> 9425
<211> 106
<212> DNA
<213> Homo sapiens

<400> 9425
ggccgggcgc ggtggctcac acctgtaatc ccagcacttt gggaggccaa ggcgggcaga       60
tcacctgagg tcaggagttt gagaccagcc tggccaacat ggcgaa                     106


<210> 9426
<211> 10053
<212> DNA
<213> Homo sapiens

<400> 9426
gcccgcaggt tgaaggttcc tggggccaca tctgggccga gaggcatggt ccttggaggt       60
aggtagctgt gccctgtata cctgccgtct gggccgtgca tggcctcagc tgcccaggag      120
gaggtttgct cgtttcctca tttccgcttt cctggcagat cctgaggccg gcagggtctg      180
ggccaagttc taaaaggcaa ccctaacatg gtctcagggc cactcgtggc cagtgctgag      240
tccgcgggaa gtgggtctgc ctggcccagc tgtggtggga accccgcctt ccagcacttc      300
```

6994

```
ctgctgtctt gctggggttt cctgccagga acacagacat ggagctggga gaccctctca    360
gggcctgctt cctgggctgg ccggtaggag acggtgcagg gctccagtgc caggccctgc    420
ctgtctgtgt ggcatctggg gaatgggcac agcagctcat gcccacactg gtgggtcaga    480
caagggatgc cggaagcccc aggcaggtcc tagcatatgg tggggtagaa gaggggtgcc    540
tgattttcag gtcgccccac catctgccaa tgcctgctga gtccaagggt tagggccagt    600
gagcaggaca ggctgcgagc agccaaggtg tagactggga ccccccaggc acccagggca    660
ggcacctcgt ccctgttgtc cccctgggtc ctgctcagca caggagaacc tgtgccccag    720
gctgtccttt ctttgctgtg tgactgtttt gtgagcctgt tcagctgctt ttgagtcagt    780
ggagttggtc ggggaggcag agtctttcaa aacagtgaga gccaggcatc aaggaaaaca    840
gccctgccac ccactgccat gcgctccacc agccacgggg catctgagac caccccattc    900
agtcccctcc acatccttgt ctacccattt tacaaatgag gaaactgagg catagagtgg    960
tcagtgttga ggcaggactc gggggggtaaa ggaggtgctg tggcagcttc cagccctact   1020
cctcacaggc ccctggaaag ggcgactgat atgcatcacc acatttgtgg gcccacagcc   1080
ccgaccctgt ctcctcccat ccaagccctg ggtgagccag aacacccatt atgctatggc   1140
cagagccagg ccggtggatg cagcaagcct ggttcatatc ccacttctgt gccagcccct   1200
cctgcctgag ctgaggatgc tcactgaagt ggccctagga ccgaccgtgt ggcccagccc   1260
caacatgtgc agcctgcagt ggggaggccg accgtccaca gaaggttgca tgaggagcca   1320
gccacgcccc tacacagagc tgacctcctc accaagcctc cctcctagct ttcagaggaa   1380
atatatctgg cctggcccca ggccccgagt gctgctgagg ttctgggaat ctattaacca   1440
gggtgtttat tccctgccct gcccaagcca tgggcactgg tctcagcagg gcttagctcc   1500
tggcagctcc tgctggctgg tcaggaccac agggctccct cacctgtggt agctgggtcc   1560
cccggccacc ctcaggccca tcccaagata gaggcaagtg cccaggactg ggggagagtg   1620
ggatcgtcct ccctgggacc ctcctgtgtg gtggtcagct cagggctcca aggcccagag   1680
taccaaggtt agggacaggg aagcagactg tccctgctgc cctcccctcc acatgatgct   1740
cccaatgtgg cctgctgcct ggggtggttg ccagctatgc tgtatcctgg ggcagcccta   1800
tgctttggga cacacagtcc tgggagatgg ctctgggaaa acctcctctg agctgcaatc   1860
tgctggtctg tagaatggga gaggaacaca gcctctccct tggtaagcag gagtttccca   1920
ggtgcaaccc tagatatacg gagggggaga ctgaggccaa cggaggggga gcttgcgtca   1980
gggccacggg ctgggctgtg gtgagccagg gcttgacctg catgcagaag cttccctagc   2040
tgcaggttgg acaggaagca gatggccgga tgggctggaa gtgcccttca ccagcagggg   2100
tgcatggtca gggcatttgc tggccactcg gggctcagag gccatcctgg ggcatctgct   2160
ccacagcctc gtggtacaca tggaagactg aggcacaaag tggggctagt tgtccggaca   2220
cagctggagc ctgaagcagg gagccattga gagttcagcc cctaagggac aatggcatca   2280
gctaccagag cttctgagcc ccggggcctg ggttcaaatc ctagccaagc cctcacttgc   2340
tatgtggctt tgggtaagga accgcctttg ctgggcttca gtttacccac cttaagtggg   2400
catgaggaca gcaggggcac aggctcctcg tggctggggg tgctgagagc tgaggcttgg   2460
ggagctggag gctctgcgcg gatggtgctt tttaatggat ctgagtgttc ctcgtgactg   2520
catggctgtg aaatatttaa atggttctgc agagctcaga aaaaaaggga attcttcctc   2580
ctgcccagag gccaacacag ttagcctggg cttgtgtgtc tgtttatgta cgtgtgcata   2640
tgtatgtatg tgcatgtgta tttgtgtgtg cgtattgtgt gcacatgtgt gtctcacgtc   2700
tatgtgtgtc tttctggggg atgtgtgttt ctgtgctttt gtgactagga acacgcacat   2760
atatgtgtag atgcccccag aaggtggaaa tcctcacggg gtctgcactt ggccttctcc   2820
cagcaccaag tcctgggatg gagacccgaa tgagcataag ggtggccttg aaggaaggca   2880
ctttggcact tgaggtttgt gaaacttagg agcacatgcc cactgtggcc agcagcccct   2940
gggacactgc accttgcgga gcacacgtgt gatggggtgt ggcccactgg gcagcttcgc   3000
aagagcagaa ctggagacga cctcagtgcc aggcacaggc ccttgtgtcc gggctgtcct   3060
cacccagacc ctgggcagcc tgggaggaag cccctaagtg gacagtggtg ggacagggac   3120
acacagtcct gggaggtggc tctgggcaaa cctcctccaa gctgcaatct gctggtctgt   3180
agaatgggag aggaacacag cctctcactt ggtgagtgcc ctggctgtgc tggggcctgg   3240
gggaatccca gggagtgcag cgtcaggccc agggtgggag aggcaaagta gacaccccat   3300
agaggcttcg gggtatgcat ggagtgaccc gagagcacac caggccccca gggacagcgc   3360
tgctgggtgg cccaggtaaa ggcggctgtc cctgtgcgca catgtgtcca cgtgaacttg   3420
ctacttagag agcagctgat gctgaaggca ggttgttgga attcccaggc ccaggtgtaa   3480
gcagcagagc ccaccagtgt cccctgacgc ccactctctt cctcctgggc acataatttt   3540
agatgaaact gaaaaacacg cagcatgaaa gcaaggcccc tgccctctgc tggttctgta   3600
ttggctgcct cgtgtatttt tccagcctgc agaaagtcga ggcctggatg gataccatgt   3660
ccgcccctcc ctgtggccct gcggcacccc ggcctcccgg cctgcatctt tcatgagtct   3720
ggaaacagga tctcccagag agggccccag gaggttggct gccagcagtg ggttctcaca   3780
gctgcctcca agcaggtgac cagtcctggg aggctgtggt ctagggcctg gcaactcagg   3840
ggcgcctgtg gacaaagggc cgggccaagg ggctggcagg tttgtcctga gtgactgaag   3900
agggccccac caggggcagct tgagaggggc agactcttgc tccagagaaa gaggaagttt   3960
```

6995

```
ggtacttagc ttggaatgaa gggccagccc tagagaggac cttcctgtgg caggagagag   4020
ggccatgtcc tgccagggga agtcctggga ggcttcctgg aagcagtggc ctctgtgtgg   4080
ggccttggag cttgagagtg tctggcacca gggaaaggca ttgggggctt cgagagaact   4140
gcagggggcc ctgaccagat aggcccctaa ggcaaagagg attccatcag aactcgcatt   4200
cccattttat tactctggga agtaatgtgg aagctaagct ccactgtatg tcgtatgctg   4260
aggcatctgt tgagcctctg ctgtgtcggg gccgggctct gggtggccca cctcagtgaa   4320
gtcttgctgc taatggccga atagttctgc aaggcctgtg ctgaggcctg gaggcgagtg   4380
gcctgttggg ccccaaggct gggaggttgg gaggtggcag gggcgatctc tgcccttagg   4440
tccggcccag gaggacttgc ttcttgcctg ggccggtgtg cacagatctg tccgcccaca   4500
cgtcacttcc tttcctggca tcaggagctc agactctgag ggggagggga gaggaggccg   4560
ggggcacaga ccggtagggg caggcaggga ggagcagccc cgcctatggc aggagtggga   4620
ggatcgggca atgctttcca gtggaaaatc agagtgcgtg tgctaaggtt gctatgtcgt   4680
ttcctttctc tccaggaccg tattcctagg ggaggtttta taaaggctga gcacatgctc   4740
gcagcctctc cttagggtaa taagcacttc tgtctgagca cttaccaggg gtgggggcaa   4800
gggaagccct cacctgcagg gcccggtgac ccccagagcc cgactcaggc acagcccttg   4860
cccccctccc ccacccgcct tgctgaccat tcccctccct gcagccggcc cgctggggct   4920
ggaggcacgg gcccatcaac gtgaaccatt acgccagcaa gaagagcgca gccgagagca   4980
tgctggacat cgcgctgctg atggccaacg cgtcccagct gaaggccgtc gtggaacagg   5040
gccccagctt cgccttctat gtgcccctgg tggtcctcat ctccatctcc cttgtgctgc   5100
agatcggcgt ggggggtgctg ctcatcttcc ttggtaggtc cccaggtggg ggcagccagg   5160
ccacctgctc accttgctgg catctgctcg catcgcctgg gacaggtgcc caccaccttg   5220
cacacttggc tctcaaggag ctgccgagtt cctggccctc atcacccaga catgcagtcc   5280
aggaagtggc acccccctc ccccacccct gcactttggt ttttgttttg ttttgtttg   5340
ttttttgaaa caaggtcccc ctctgtcacc caggctggaa tgcagtggcg cagtctcggc   5400
tcactgcaag ctgcatctcc tgggctcaag cgatcctccc acctcagccc ccaaagtaac   5460
tgggattaca ggcgctcatc accatgcccg gctaattttt gtatttttg tagagatgag   5520
gttacgccat gttgcccagt cgaattttg agctcaagtg atccaacagc ctcagtctcc   5580
caaaatactg ggattacagg catgagtcac cacgctcagc cttgtttgt tttgttttgt   5640
tttgtttttg aaaccgggtc ttgctgtgtc ttgatcacag ctcactgcag tctcaacctc   5700
ccaggctcaa gcgagccttc tgcctcagcc tcccaggtag gctggaccac agctatatgc   5760
catcatgcca gctaattttt ttatttttgg tagacacggg gtcttgctat gctgcccagg   5820
ctggtctcaa actcctgggc tcacgtgatc ctcctgtctc ggcctcccaa agtgctggga   5880
ttacaggtat gaaccactgt gcctggcccc accctgcact ttgaaagagc acagagtggg   5940
gtcagggcct ggcctgtggg cattagggca ggtgtttcac cgggttcttg ttgacccatg   6000
ccatgagatg gcctcagtca tgccagtcct accttctggg cccagggtcc ccttcatggc   6060
tgcgtaacct tgggcaagtg gctgaacctc ccgggcctca cttataaaac aggcatcata   6120
atagaactgc agcttgtggc aggaatcact agattaaggc acgcaaaggg ctcagtgcat   6180
ttgcccaaac ctggcctttg gttgacgtcc atagcttcaa ttcgtataag gaaaatatgg   6240
gggctacaga aggtggggtc atagaccgtg gggttgccca agccaggggc gctgttgtcc   6300
atgtttcagc aaaacagatg tattttctc tgggcgacaa aactcatcct aaatgcgact   6360
gagagccctg taatgtccca ggacagcttg accgctgggg tgggtcccct tccactgtcc   6420
caggctgggg cgctgcgtct gggctgccct tggcaccatc cactcctctc tcgcccacag   6480
tcaagtacga ccttaacaac ccggccaagc acgccaagct ggacttcctc aacaacctgg   6540
ccacgggcct ggtgttcatc atcgtggtag tcaacatctt catcacggcc ttcggggtcc   6600
agaagccctt gatggacatg gcaccccagc agtaggacac ccaggtgagc tgggagatgg   6660
ggcgcgaggc ctgcagtcct ggggttgctc gctgttggag gctcttgcag tgtggtgagt   6720
ccctggccgg ccagccttgg acaccttcct aggccatggg catcctcgtc cacacctaca   6780
aggccaatgc ctggccactg ccttgaggcc agccctgcca ctggtgctgg ccacctgggg   6840
tcctgtggtc acagtgttta gatggaatgt gtgtaggagc caccatttga acatcctgga   6900
gaactcactt aaacgtaaga tttctataca ttcagaatgt ctgtccgata aaaaaaaaa   6960
gatttctggg tcaggcgcgg tggctcatgc cggtaatccc agcactttgg gaggctgagg   7020
cgggcagatc acttgaggtc aggagttcga gaccagcctc gccaacaggg tgaaaccccg   7080
tctctactaa aaatacaaaa agtggccagg catggtggca catccctgta gtcccagcta   7140
ctcaggaggc tgaggcagga gaatcgcttg aacccaggag gcagaggttg cagtgagcta   7200
agatcgtact actgcactcc agcctgagcg acagagtgag actctgtctc aaaaaacacc   7260
caaaacccaa agatttccgg cttctcttga taagtcaggg gctctgcacc ccttatcagc   7320
tccacttagc aggtgaagct tcctcccagc cctcgtctga gaaaaaggga ccttggtatg   7380
accgcctgcc tgacatgccc acctcactgt gccactctga ccaggacggt gggattcagg   7440
atcttgtcac gtggagccct tgtgactctt caagtctgcc ccttgccggg cctcgcagaa   7500
tctgttagct gcctgcctta ggctggaccc tggctgtgtg caggatgcag actgaggctg   7560
tctctacagg acgaggcacc cagtgtagga agacttctca caccacatac agcctctccc   7620
```

                              6996

```
tgtgtccttg ctcagagagg gtgagcgtct gcccagtgac acagcctggg agcaggatcc        7680
acaggaaggc ctgggatgca gccatggcca gggccacatg gtgcacacac tacagtccat        7740
gcagccaggc cagggccaca caccacagtc cccgcgacct taggcctagg ggtcacccct        7800
ccggtttgta gcagaggtgg aggtgagttg ctaagggagg ggtgggcact cctggcaggt        7860
ggccatctct ccaccagtgg tggcccatgg cagagtagac aggagcagtg ctcttggggc        7920
agagcgcctg tgtgtcaagg atatataaaa atttccccag gccaggcacg gtggctcaca        7980
cctgtaatcc cagcactttg ggtggctgag gcaagcggat cacctgaggt cgggagcttg        8040
agaccagcct gaccaacatg gagataccgt gtctctgcta aaaatacaaa attagccagg        8100
cgtgatggcg catgcctgta atcccagcta ctcaggaggg tgaggcagga gaatcgcttg        8160
aacctggaag gtggagattg cagtgaactg agatcacgcc attgcactcc agcctgggca        8220
acagtatgag actccatctc gggaaaaaaa aaaaattccc caagagggca tagtgaggat        8280
gaggtggggc gctggggcca gcagctgggt tgggagcacc ctgcatccac ctggcctcac        8340
ccctccccac acgggggcca acgagtgacc gctgctcgta gtggcccatg gcctctcaag        8400
ctcccctacc acacccaagg ccattccccc agtgggatca cgccagcccc caatgtcccg        8460
gccgtggagc ctgaagtcac cctcctgaaa ggacctggat ctgggcggcc ccatgtgggg        8520
tccgagtcac tgtccagatg ctgcctccag tttgtagtta agttgtcctc ttccagaaca        8580
cctagatgtc agctgctccc tggcttgggc atgtggccag gccatttatt aatcacctgc        8640
tgtgtgtgct gaatgcagtc cctaactctc ccaagcatga gttatctgcc tgccgggaag        8700
agggtgctgc gtctgtgggc cacgtgggga cccagcagtg gaccttaaag ctgtcctcag        8760
aggctcggag gccaaagctg ctgtgtgtcc tgcgtggagc agtcagagag gtctcaggct        8820
tcgtgggtgg ctatggtcac agctgcccaa cccgagcccc ccatgctggg ccaggcctct        8880
aagtcctggc agtaacccag ccatgctata ttcattccat tttcagaggg gaaactgagg        8940
catggagtac tttgacacct ctcatgtcag aatcaggctc ttctccttcc tgagtccggg        9000
tgtgcaaatg gccctgacac tcgggggcttg tcacagcctg gctcagagcc tctcctctcc       9060
ctccttccag gctcagagcc tctcctctcc ctccttccag gctcagagcc tctcctctcc       9120
ccccttccca ggctcagacc ctctcctctt cctccttcca ggctcagacc ctctcctctc       9180
cctccttcca ggctcagacc ctctcctctc cctccttcca ggctcagacc ctctcctctc       9240
cctccttcca ggctcagagc ctctcctctc cctccttcca ggctcagagc ctctcctctg       9300
tctcctttcc aggaccctgg atgttgcctg ccctgcaact cagctgcccg accccaggag       9360
tcgccatacc tgtgaggtgt ccacctccct gcacatggca ctacccagac tgccagagcc       9420
caggctggcc tcatctgcac catgtccccg gaccagccct tgctctgact gcggccaagc       9480
accacgcagg aggccactct tgtctctcag cagctgttcc caggaggcag ctccctcctg       9540
gcacatgggg gctggccaca atagcccaga gggtcagaac tggacagctg cagagacctg       9600
tgcccagaga agggtctcga cccactcaag gacacacagc aggtccgtgg atgggctgga       9660
tgagtgacca gggccagcct ctgtctcagg acattccaga aggacaagga gatgtctctc       9720
cctctcccaa agcaccagcg tccctgcctc ccgtgggccc tgtccgggtt gccctggtga       9780
ccccagcctc tgtccacttc ctaacccagg gaccctgcac agccagaact gcctttggcc       9840
ctacggatgg ccactggctc tggtcttaag tgcctgggct tggtggccat caagagggag       9900
ccagtcaggc ctgtgagggc cgtagacctt gtatatacccc tgcaccagca gtgaccgggc      9960
agagcccaac ccctccacg ggggtcccag cacccacttt tctaatcatg aatgaacaat       10020
aaagcccacg ctctttgtca ggctccacat gcc                                  10053
```

```
<210> 9427
<211> 141
<212> DNA
<213> Homo sapiens

<400> 9427
tagcattggc cgcaggttgc gtggccagcg ctgactcaga tgcatgccgc ccagcgcttg          60
gtccctgatt tggccatggc ctgcagtgtg ggctggctgg cagccaggca ggagggaggg         120
cccctgtgt gcctggcctc a                                                     141


<210> 9428
<211> 986
<212> DNA
<213> Homo sapiens

<400> 9428
tttctttctt tttatttgag agaaggggg gttgagagta gagtgggaat ggcaagaagt           60
```

```
agtatgacag agcttcttct cttttttttcc cctctttacc aggaagttaa ctagaagtct      120
tcatgcatgt ttttaaaaca aagttggtaa ttagcataac ctagttagtt acctttacac      180
agagtgacag aattaaaaag ttgacaagcc catcagacct cagccaggag gtactgaaag      240
gagggagacc agtgagtcta gaccaatagg tgggttaggc ctcctgaatg ccagcctaga      300
agtttagact tgattctata ggctctaggg tacctacaag tttgtagtcg cagccttggg      360
aattgaatgt tacataggaa ctttcactgg ttccagctag ccttggctgt tagcaattat      420
ttttatctac tttaacaggg gggacagagt aggggggcag gaaactaagc tggcattatg      480
gtcacaggaa agaacagact gatttggagc ctttcaaact gcagaccttt gttactgacc      540
gatgcttaat ttggtttctg ggttttgtta gttttttccc ctgcccttac ctcatttacc      600
ttaacgacag ctccccctc tagagctcag ctagggcagg ctgccactgt ggattggggg      660
gccaagaggc ccagtgcaag aagaaagtgg gttgaaagca gagttctgtt taaagaattt      720
tctgctggaa actagcccag agggagtaaa gaggagcttt aatgaggagc agctgcagtg      780
ccgacgcaac ccacatgaga cttttttttc ccttcgttc cacattctgt atagtttttt      840
taaaaatcat gactttgaaa tagctgtttt gtaaagcatg cctctctttt tcttcttgta      900
tgtggtggga ttttgctttg ttgttgttgt tgttgtttct tgaatggcca aatcctcgtt      960
ttaaaaaaaa aaaaaaaaa aaaaa                                               986
```

<210> 9429
<211> 986
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (488)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (580)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (656)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (667)
<223> n equals a,t,g, or c

<400> 9429
```
tttctttctt tttatttgag agaagggggg gttgagagta gagtgggaat ggcaagaagt       60
agtatgacag agcttcttct cttttttttcc cctctttacc aggaagttaa ctagaagtcc      120
tcatgcatgt ttttaaaaca aagttggtaa ttagcataac ctagttagtt acctttacac      180
agagtgacag aattaaaaag ttgacaagcc catcagacct cagccaggag gtactgaaag      240
gagggagacc agtgagtcta gaccaatagg tgggttaggc ctcctgaatg ccagcctaga      300
agtttagact tgattctata ggctctaggg tacctacaag tttgtagtcg cagccttggg      360
aattgaatgt tacataggaa ctttcactgg ttccagctag ccttggctgt tagcaattat      420
ttttatctac tttaacaggg gggacagagt aggggggcag gaaactaagc tggcattatg      480
gtcacagnga aagaacagac tgatttggag cctttcaaac tgcagacctt tgttactgac      540
cgatgcttaa tttggtttct gggttttgtt agttttttcn ccctgccctt acctcattta      600
ccttaacgac agctccccc tctagagctc agctagggca ggctgccact gcggganttgg      660
ggggccnaag aggcccagtg caagaagaaa gtgggttgaa agcaaagttc tgtttaaaga      720
attttctgct ggaaactagc ccagagggag taaagaggag ctttaatgag gagcagctgc      780
agtgccgacg caacccacat gagacttttt tttccccttc gttccacatt ctgtatagtt      840
tttttaaaaa tcatgacttt gaaatagctg ttttgtaaag catgcctctc ttttttcttct      900
tgtatgtggt gggattttgc tttgttgtta ttgttgttgt ttcttgaatg gccaaatcct      960
cgtttttaaaa aaaaaaaaaa aaaaaa                                           986
```

```
<210> 9430
<211> 980
<212> DNA
<213> Homo sapiens

<400> 9430
ttctttcttt ttttttttgag agaagggggg gttgagagta gagtgggaat ggcaagaagt        60
agtatgacag agcttcttct cttttttttcc cctctttacc aggaagttaa ctagaagtcc       120
tcatgcatgt ttttaaaaca aagttggtaa ttagcataac ctagttagtt acctttacac       180
agagtgacag aattaaaaag ttgacaagcc catcagacct cagccaggag gtactgaaag       240
gagggagacc agtgagttta gaccaatagg tgggttaggc ctcctgaatg ccagcctaga       300
agtttagact tgattctata ggctctgggg tacctacaag tttgtagtcg gagccttggg       360
aattgaatgt tacataggaa ctttcactgg ttccagctag ccttggctgt tagcaattat       420
ttttatctac tttaacaggg gggacagagt agggggggcag gaaactaagc tggcattatg       480
gtcacaggaa agaacagact gatttggagc ctttcaaact gcagaccttt gttactgacc       540
gatgcttaat ttggtttctg ggttttgtta gtttttttccc ctgcccttac ctcatttacc       600
ttaacgacag ctccccccctc tagagctcag ctagggcagg ctgccactgc ggattggggg       660
gccaagaggc ccagcgcaag aagaaagtgg gttgaaagca gagttctgtt caaagaattt       720
tctgctggaa actagcccag agggagtaaa gaggagcttt aatgaggagc agctgcagtg       780
ccgacgcaac ccacatgaga cttttttttcc ccttcgttcc acattctgta tagttttttt       840
aaaaatcatg attttgaaat agctgttttg taaagcatgc ctctcttttt cttcttgtat       900
gtggtgggat tttgctttgt tgttgttgtt gttttttttt gaatggccaa atcctcgttt       960
ttaaaaaaaa aaaaaaaaaa                                                     980


<210> 9431
<211> 468
<212> DNA
<213> Homo sapiens.

<400> 9431
agactgtaaa ctggaagata aggatgtttg taaagttctt gtataaataa agcatggttt        60
ctcattgcag tggttactga tttcatagtc tgagtgaaga tgaatgatgc tgtgaatcaa       120
cagctttaaa gtccgtacca cttcagcttc tttttggttt aggtttctta aaatcagtgt       180
gtatttaatg ctttattcag atgaggggggt gaaaaaccta acacatgtaa actaagtgag       240
gtggggtttc agagataatt cccagcctca caattcctca tgaagttctt ttcctgtggg       300
aaacttttaa tttggaagca tgcaacctaa tgtgggaacc aagattaaca ttttctgaaa       360
tacttctaca agaaaagcag aaatggtctg tccaggaagc tgaatttaca tagtagaaaa       420
atgagctgcc ctgcagtatt tggtagtctt tgtgtattgg ttgtgata                    468


<210> 9432
<211> 468
<212> DNA
<213> Homo sapiens

<400> 9432
agactgtaaa ctggaagata aggatgtttg taaagttctt gtataaataa agcatggttt        60
ctcattgcag tggttactga tttcatagtc tgagtgaaga tgaatgatgc tgtgaatcaa       120
cagctttaaa gtccgtacca cttcagcttc tttttggttt aggtttctta aaatcagtgt       180
gtatttaatg ctttattcag atgaggggggt gaaaaaccta acacatgtaa actaagtgag       240
gtggggtttc agagataatt cccagcctca caattcctca tgaagttctt ttcctgtggg       300
aaacttttaa tttggaagca tgcaacctaa tgtgggaacc aagattaaca ttttctgaaa       360
tacttctaca agaaaagcag aaatggtctg tccaggaagc tgaatttaca tagtagaaaa       420
atgagctgcc ctgcagtatt tggtagtctt tgtgtattag ttgtgata                    468


<210> 9433
<211> 468
```

<212> DNA
<213> Homo sapiens

<400> 9433

```
agactgtaaa ctggaagata aggatgtttg taaagttctt gtataaataa agcatggttt     60
ctcattgcag tggttactga tttcatagtc tgagtgaaga tgaatgatgc tgtgaatcaa    120
cagctttaaa gtccgtatca cttcagcttc tttttggttt aggtttctta aaatcagtgt    180
gtatttaatg ctttattcag atgagggggt gaaaaaccta acacatgtaa actaagtgag    240
gtggggtttc agagataatt cccagcctca caattcctcg tgaagttctt ttcctgtggg    300
aaacttttaa tttggaagca tgcaacctaa tgtgggaacc aagattaaca ttttctgaaa    360
tacttctaca agaaaagcag aaatggtctg tccaggaagc tgaatttaca tagtagaaaa    420
atgagctgcc ctgcagtatt tggtagtctt tgtgtattag ttgtgata              468
```

<210> 9434
<211> 22680
<212> DNA
<213> Homo sapiens

<400> 9434

```
agtgaacagc ggagccggac ggggatcgcc ggcgggcggc aagcggaggc ggcccaggcc     60
cggcggtctc cgagatgtca cgatggctgt ggccatggtc aaactgtgtg aaagagcggg    120
tctgccgcta cttgctgcac cactacttag gtcacttctt ccaagagcac ctcagcctgg    180
accagctcag cctcgatctg tacaagggca gcgttgccct gcgagacatc cacctggaaa    240
tctgggtgag gagccaggcc cgagtccagg aaggtgcgga gggtgggagc gcagcgacct    300
gaggctccct gcggcaggat cgggctgggg gatcaggcac cgggcgtaga gaggccaggg    360
gaatcttgcc ctctcccagg cgtcagaggc accccggcta gcctcttcag ttccttacca    420
gagccagaaa ctgagcggga aggggtttct gtctccacgg gaggagaaac tgaggctgga    480
gagggcaaga tcacctgtct ggagaatgca agacaaactc gtcgagtttg ggggctgagt    540
taaggaggtt ggctctcggg ctgaggaggg gctggggagg gagcgtagga actgagctgg    600
gccagggcag tgacagactt gggcctgcgc agctggtggg ggaagctggt aggggtccgg    660
agccctggcg aggacacctg tggatcatgt gccctgacct cttgacccca cggtcctgag    720
cccgtaggtg ggatcaacaa accaccggat gtgtatgtca acaaccgcgt cagtacgtca    780
gtaccagtgt tgatcaacac ctcgtgtgcc tgggtcgctg cctacttcct gcttttggga    840
gagtgggatg ggccaagtgg gtgtctaggg agggactgga tggcccccac ccacatctcc    900
caccgacccc cccggctcag tgtccctgcc tggagggagg ccctggagga aaggtgggga    960
gatctggctt caagccggga ggaggccaag ggagatgcta gggaggccaa gaggtgtaag   1020
gtcagaggct tgaggctggg aacggtgagg agccctgact cacagctcag ctgacctggg   1080
gagctttgaa ggagccacca attagaggcg cgtcctggtc gatccaccag gtccagagca   1140
gcaggggtgg gcatggaggc agggacttct cagttttgtg gctggactca gggggctgct   1200
aatctgggca gaagagctag gctttggggg taggccaggc cctggtgagc aaatgtgggg   1260
taggataatc gtgggccctg aactgggggc accccccagt ggcctgctgt ctgtgaattc   1320
tggtgtagga agccctctct gacctctaac cttagcctca gcctctaagg ccgtctctag   1380
gctgcccctt ttttattttt atagagacag gatttcgcta tgttgcccag gctagccttg   1440
aacccctgaa gggatcctcc cacctcagcc tcccaaagtg ctgagattat aggcatgaac   1500
caccataccc agccctaggc ttcccctttt tactttcagc tccagaaaac gcccctactc   1560
ctgttccctg ccctcttgtt ggggattgaa ttggcttctc tagggccctg gtggaatgca   1620
ggcgctttct tgataaccag cccctcctcc ctcccagctc agcctgcagg ccccgccttg   1680
aaggccccca agaaactga gtatctgggg cctctgaagt ggcatgaaaa gagagaggcc   1740
cgcatcccag tctcagtccc tgttgtatac tgggtgacta gattagtcct gtctctaggc   1800
ctcagtttcc cgagctgtgg gtctctgggt gaggaatttg gactcccatc tgctctgcca   1860
tgtgcttttt tattcttgga tccaaccagt ttactgaggc cctttctggg tggcacctgg   1920
ggtgacgggg gaggcaggtg gggtacagcc ctccaggagc ttccaggttg caggggtac   1980
aactccagca tggacatttt agccaggggc tcagccttgt gcctcacaga gaggcacagc   2040
tacactaggt gtttgggggtt ggtggggggg ggggtcccca tctggcatta ggtcagcccc   2100
tctcttggac actgtccctt tgaactctgc tcatccaggg tgaacatggg tattctggac   2160
tctgccatac atgtgcccat gttgtcctgt gcctgcaaca caccaccttc taccagcgcc   2220
tatccccct ccctttattc ttcagcttgc ccctcctctg acggcccagg ctgggttagg   2280
cgtcttcccc acggcccccc caccagcccc ctcaccaccc ccaagcacct gctcacctct   2340
tgagtttcat cctagttgct ctgagtccct ggctggagcc tagcttggct ggggaatgaa   2400
gacattttat ttacccatct agtctcagtg tcagcatgta gaaagtgctc ggtaaatatt   2460
```